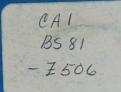


Statistique Canada







Higher Education-Hired?

DESCRIPTION CONTAIN MATERIAL.

Sex differences in employment characteristics of 1976 postsecondary graduates

M.S. Devereaux Edith Rechnitzer Digitized by the Internet Archive in 2023 with funding from University of Toronto

1 Canada Statistics Canada 3 Folication Ablication

Statistics Canada
Projections Section
Education, Science and Culture Division

Higher Education - Hired?

Sex differences in employment characteristics of 1976 postsecondary graduates

by M.S. Devereaux Edith Rechnitzer

Published under the authority of the Minister of Supply and Services Canada

The views expressed by the authors are their own and not necessarily those of Statistics Canada

Minister of Supply and Services Canada 1980

August 1980 4-2251-521

Ce texte est disponible en français sur demande sous le titre de "Études supérieures: Atout professionnel?"

Ottawa

Statistics Canada Propoline Securi Canado, processo Ourselliveur

Higher Education

- Hired?

LIBRARY C 1980 SE

by M.S. Deverseur

to principle and mining becomes, a true comp. I be achorally and change it assessed.

The representation of Stabilities are their stabilities are the representation of Stabilities

Month of Supplier

150 17 25 0

Transfer to the second of the

MENT !

Highlights

A college diploma or university degree is no guarantee that a woman will achieve equality in the labour force. Women are not earning their credentials in "elite" fields such as medicine, engineering, law, or business. They are clustered in traditional, female—dominated areas that lead to low—paying jobs with few chances for advancement and little prestige. Only 11% of the women who received bachelor's degrees in 1976 had specialized in "masculine" disciplines. And even these few encountered the familiar salary gap. For example, by 1978 the median salaries of the medical and dental graduates who were working full—time were \$21,330 for men, \$15,500 for women. This is just one illustration of a well—established pattern that was confirmed in a national survey.

In 1976, 92,399 individuals graduated from Canada's colleges and universities.

- -Almost half of them were women.
- -A majority of the 15,170 women who received college diplomas graduated from traditional "feminine" fields such as nursing and secretarial arts.
- -Nearly two-thirds of the 27,950 bachelor's degrees awarded to women were in just five fields: education, fine and applied arts, humanities, psychology, and sociology. These fields accounted for only one-third of the 30,140 male bachelor's degree recipients.
- -At the master's level, around 10% of the 2,280 women earned their degrees in engineering or business, compared with 40% of the 4,930 men; about half the women graduated in the humanities or education.
- -Only 170 women received doctoral degrees: 41% of them in social sciences, 32% in humanities. More than four times as many men (790) were awarded Ph.D.'s: 37% in engineering, 29% in social sciences.

Two years later, in 1978, the same graduates were asked how they had fared in the labour market.

Their employment status:

- -A higher percentage of women than men claimed that they had attended the postsecondary institution for specific career objectives, but the male graduates' full-time employment rate was higher.
- -Women, especially married women, were more likely than men to be working part—time, unemployed, or out of the labour force entirely.
- -Employment rates of both sexes were highest for graduates of job-specific fields: medicine, business, secretarial science, and engineering; lowest in less specific areas such as languages, political science, and psychology.
- -Fine arts graduates found full-time employment most elusive: the rate for men was 77%; for women, 67%.

Their jobs:

- -A smaller proportion of female than male graduates considered their jobs unrelated to their education.
- -Most liable to be doing unrelated work were graduates female and male of fine and applied arts, biology, physical education, humanities, and social sciences such as geography, political science, psychology, and sociology.
- -These graduates also had a good chance of ending up in a non-"highly qualified manpower" position a job that did not require a degree.
- -A larger percentage of female than male bachelor's degree recipients were employed in "highly qualified manpower" jobs: 78% versus 71%. This may be because women tended to be clustered in relatively few, traditional occupation groups, notably teaching, while men were more dispersed.

- -Second to teaching, clerical jobs were the most frequent occupational destination of women with bachelor's degrees.
- -Teaching was also the most common outcome for the men, followed by jobs in management, physical sciences, social sciences, and health.
- -More than 40% of the women with business diplomas were clerks, whereas more than half of the similarly qualified men were in management or sales.
- -While female graduates (college and university) were employed in a narrow range of occupations (health, teaching, clerical), male graduates were not so concentrated, and found jobs in different spheres (natural and physical sciences, management, engineering).
- -Female college graduates expressed more job satisfaction than males.

 The level of satisfaction among women and men with bachelor's degrees was about equal, but female master's and doctoral graduates were less satisfied than their male counterparts.
- -Unmarried female graduates in unsatisfactory jobs were just as likely to say that they planned to leave as were single males. Married women were least inclined to contemplate any change.
- -Fewer than half the married women with bachelor's degrees who were working in clerical positions were satisfied with their jobs, yet close to 80% intended to stay. (About 55% of the single women were satisfied with such jobs; around 60% planned to stay.)

Their 1978 salaries:

-At the end of May 1978, female graduates were earning less than males. (Only about one—third of the women with master's degrees were in the \$20,000+ income bracket, in contrast to more than half the men.)

- -Typically, the women's median salary was about 85% of the men's, although in one case it fell as low as 70%.
- -The median salary for a woman with a bachelor's degree and no previous work experience was \$13,090 not even as much as the \$13,270 earned by a man with a one-year college diploma and no experience.
- -A female teacher with a bachelor's degree had to have three to four years' experience to reach the salary level of a male teacher with the same education and less than one year's experience.
- -Male graduates in clerical positions earned as much as \$3,000 a year more than equally qualified women in similar jobs.
- -Even in "women's" fields, the earnings gap was evident. The median salary of graduates with two-year nursing diplomas was \$12,830 for women, but \$14,340 for men.
- -For men, the income boost between the bachelor's and master's degree amounted to about \$6,400. The increment for women was \$3,400.
- -Although the women's median salary was less than the men's, their level of satisfaction with their earnings was not necessarily lower. For example, women with a bachelor's degree in history had a median salary of \$13,030 and 83% were satisfied; the median for men was \$14,100, but only 77% were satisfied.

Continuing education:

-A larger proportion of male than female graduates of every qualification level was enrolled in a postsecondary institution in 1977. Men were more apt to be enrolled full—time, but except for college graduates, a larger percentage of women was enrolled part—time.

-Marriage tended to dampen women's aspirations for further job-related education; marriage breakdown enhanced their motivation.

Looking back:

-About one-quarter of all graduates, women and men, regretted their choice of postsecondary program. Most college graduates would have opted for university training; the university graduates wished they had taken a different university program.

In the late seventies, Canada's female postsecondary graduates had not reached the same level in the world of work as men with similar academic qualifications. Women continued to occupy job ghettos — professional and otherwise.

Table of Contents

		Page
	Highlights	3
	List of Tables	11
	List of Charts	15
	Foreword	17
	Preface	19
	Acknowledgments	21
	Method	23
	Explanation of Terms	25
	Layout	27
	Symbols	29
I.	Educational and Social Characteristics	31
II.	Motivation	43
III.	Employment History	47
IV.	Labour Force Status	55
V.	Relationship of Job to Education	67
VI.	Nature of Employment	7 5
VII.	Salary	93
III.	Job Satisfaction	109
IX.	Retrospective Judgment	123
х.	Continuing Education	135
XI.	Selected Occupations and Fields of Study	143
XII.	Tomorrow's Graduates	167

XIII. Plus ça change	173
Introduction	175
Education	175
Related Findings	178
Traditionals, Moderates, and Innovators	181
Motivation	182
Employment Status	183
Job—Education Relationship	185
"Highly Qualified Manpower"	187
Underemployment	189
Salary	189
Job Satisfaction	192
Retrospective Judgment	192
Marriage	193
Continuing Education	195
Teachers	196
The Clerical Ghetto	197
A Word to the Wise	197
Conclusion	198
Bibliography	201
Appendix A. Survey Questionnaire	203

List of Tables

		Page
I.	Educational and Social Characteristics	
1.	Field of study, 1976 college graduates, by type of diploma	33
2.	Field of study, 1976 bachelor's and first professional degree recipients	35
3.	Field of study, 1976 master's and doctoral degree recipients	37
4.	Age distribution in June 1978, by qualification level	39
5.	Marital status in June 1978, by qualification level	41
II.	Motivation	
6.	Graduates who took the postsecondary program for specific career objectives, by qualification level	45
III.	Employment History	
7.	Number of years worked before graduation, by qualification level	49
8.	Success rate of job search methods, college graduates, by type of diploma	51
9.	Success rate of job search methods, university graduates, by degree level	53
IV.	Employment Status	
10.	Employment status, by qualification level and marital status, 1978	57
11.	Full—time employment rate, college graduates, by field of study and type of diploma, 1978	61
12.	Full—time employment rate, bachelor's and first professional degree recipients, by field of study, 1978	63
13.	Full-time employment rate, master's and doctoral degree recipients, by field of study, 1978	65

		Tag
V.	Relationship of Job to Education	
14.	College graduates in full—time jobs not related to their education, by field of study and type of diploma, 1978	71
15.	Bachelor's and first professional degree recipients in full—time jobs not related to their education, by field of study, 1978	73
VI.	Nature of Employment	
16.	Occupation groups of one— and two—year college diploma recipients employed full—time, by field of study, 1978	77
17.	Occupation groups of three— and four—year college diploma recipients employed full—time, by field of study, 1978	79
18.	Bachelor's and first professional degree recipients employed full—time in "highly qualified" and non—"highly qualified manpower" jobs, by field of study, 1978	81
19.	Master's and doctoral degree recipients employed full—time in "highly qualified" and non—"highly qualified manpower" jobs, by field of study, 1978	83
20.	Level of education specified by employers of graduates working full—time, by graduates' qualifications, 1978	89
/II.	Salary	
21.	Salary range of graduates employed full—time, by qualification level, 1978	95
22.	Median 1978 salary, graduates employed full—time, by qualification level and prior work experience	99
23.	Satisfaction with salary, college graduates employed full—time, by field of study and type of diploma, 1978	103
24.	Satisfaction with salary, bachelor's and first professional degree recipients employed full—time, by field of study, 1978	105
25.	Satisfaction with salary, master's and doctoral degree recipients employed full—time, by field of study, 1978	107

		Page
/III.	Job Satisfaction	
26.	Job satisfaction, graduates employed full—time, by qualification level, 1978	111
27.	Job satisfaction, college graduates employed full—time, by field of study and type of diploma, 1978	115
28.	Job satisfaction, bachelor's and first professional degree recipients employed full—time, by field of study, 1978	117
29.	Job satisfaction, master's and doctoral degree recipients employed full—time, by field of study, 1978	119
IX.	Retrospective Judgment	
30.	Satisfaction with college program, by field of study and type of diploma, 1978	127
31.	Satisfaction with bachelor's or first professional degree program, by field of study, 1978	129
32.	Satisfaction with master's or doctoral degree program, by field of study, 1978	131
33.	Retrospective preference of graduates who regret their choice of program, by qualification level, 1978	133
Х.	Continuing Education	
34.	Graduates enrolled in postsecondary institutions in October 1977, by enrolment status and qualification level	137
35.	Plans for postsecondary enrolment within the next two years, by marital status and qualification level, 1978	139
XI.	Selected Occupations and Fields of Study	
36.	Top five occupation groups of graduates employed full—time, by qualification level, 1978	145
37.	University graduates employed full—time in elementary—secondary teaching occupations, by degree level and field of study, 1978	149

			Page
	38.	Median annual salary of bachelor's degree recipients employed full—time in elementary and secondary teaching occupations, by work experience, 1978	151
	39.	Bachelor's degree recipients employed full—time in clerical occupations, by field of study, 1978	153
	40.	Occupation groups of business graduates employed full—time, by qualification level, 1978	163
ΧI	I.	Tomorrow's Graduates	
	41.	Bachelor's and first professional degree enrolment, by field of	169

List of Charts

		Pag
1.	Employment rate, by qualification level, 1978	59
2.	Graduates in full-time jobs not related to their education, by qualification level, 1978	69
3.	Occupation groups of university graduates employed full—time in "highly qualified manpower" jobs, by degree level, 1978	85
4.	Occupation groups of university graduates employed full—time in non—"highly qualified manpower" jobs, by degree level, 1978	87
5.	Graduates working full—time who considered themselves underemployed, by qualification level, 1978	91
6.	Salary range of graduates employed full—time, with no prior work experience, by qualification level, 1978	97
7.	Median 1978 salary and satisfaction with salary, graduates employed full—time, by qualification level	101
8.	Job satisfaction of graduates employed full—time in positions not related to their education, by qualification level, 1978	113
9.	Graduates planning to leave an unsatisfactory permanent full—time job, by marital status and qualification level, 1978	121
10.	Satisfaction with educational program, by employment status and qualification level, 1978	125
11.	Graduates planning postsecondary enrolment to improve their job prospects, by marital status and qualification level, 1978	141
12.	Nursing graduates' employment outcome, by qualification level, 1978	147
	Bachelor's degree recipients employed full—time in clerical occupations, by job satisfaction, intention to stay in job, and marital status, 1978	155
14.	Median annual salary of graduates employed full—time in clerical occupations, by qualification level, 1978	157
15.	Bachelor's degree recipients employed full—time in sales occupations, by job satisfaction, intention to stay in job, and marital status, 1978	159

		Page
16.	Median annual salary of graduates employed full—time in sales occupations, by qualification level, 1978	161
17.	Business graduates' employment outcome, by qualification level, 1978	165
18.	Traditionals, moderates, and innovators among 1976 and 1978 female graduates and 1978—79 female enrolment, bachelor's and first professional degree level	171

Foreword

"Education should be as gradual as the moonrise, perceptible not in progress but in result." As I read this report, which demonstrates the relationship of employment to education, Melville's poetically pragmatic view comes to mind for two reasons:

- -Education may be gradual, its progress may remain imperceptible, but it should have a goal.
- -To ensure results, formal education ideally should proceed on a planned course, a predefined path, as does the moon, never disappointing the mesmerized moongazers. Hardly ever!

The findings of the current Statistics Canada survey, which was co-sponsored by the Women's Bureau, Labour Canada, reinforce the fact that formal education requires careful planning. The valuable analysis and discussion of the survey are available to us thanks to the tenacity and dedication of Edith Rechnitzer and Mary Sue Devereaux of Statistics Canada.

Some readers might wonder who cares about educational goals and results at the age of 13 or 14, when educational choices are made. Young women now thinking about postsecondary and postgraduate education, or even their younger sisters choosing their high school courses, should read this report carefully — and seek guidance and advice from teachers, counsellors, parents, and others who have learned about life the hard way, from practical experience.

For many women approaching the "September of our years", it may become obvious that a lack of career planning resulted in "rain on our parade."

Here is hoping that this report might help stop this from happening to young people of today and of tomorrow.

Ratna Ray Director Women's Bureau Labour Canada



Preface

This report contrasts the 1978 employment situation of the women and men who earned postsecondary credentials in 1976. Because the aim is to show general national conditions, only the most obvious variables are examined. However, as the survey questionnaire clearly indicates, many other tabulations could be made, and provincial breakdowns of most data are possible. The computer files contain a wealth of material yet to be extracted. Therefore, this publication should be regarded as an exploratory overview. The authors would appreciate any comments about its contents and suggestions for follow—up studies.



Acknowledgments

The financial contribution of our co-publisher, the Women's Bureau of Labour Canada, made it possible to distribute this study free of charge, and thereby, reach a larger audience. We are grateful to Dr. Ratna Ray, Director of the Bureau, for this support, and to Ms. Diane Carroll and Ms. Elizabeth Humphreys, who reviewed the manuscript and suggested a number of changes.

The publication was prepared by the Projections Section of Statistics Canada's Education, Science and Culture Division. We are indebted to Mrs. Hyacinta Belloni, Mr. Warren Clark, Mrs. Vera Demirovich, and Mr. Robert Pellarin for their assistance.

Ms. Rosemary Campbell, Statistics Canada's Equal Opportunities for Women Co—ordinator; Ms. Carole Swan of the Office of the Co—ordinator, Status of Women Canada, and Ms. Linda MacLeod and Ms. Marcia Lalonde of the Advisory Council on the Status of Women read the manuscript and recommended a number of improvements. We appreciate the encouragement we received from Ms. Doris Anderson, President of the Advisory Council.

We thank these people for their constructive suggestions, most of which have been incorporated in the final version. However, the authors accept sole responsibility for the facts, opinions, and any errors in the report.



Method

A survey of 1976 postsecondary graduates was conducted by Statistics Canada in June 1978, approximately two years after these individuals had completed their programs. A sample was selected from the population who had been granted a university degree or college diploma any time during the 1976 calendar year. Recipients of university diplomas and persons who completed university transfer or trade programs in colleges were excluded. The sample was stratified within provinces by field of study and by type of qualification to ensure reliability for these groupings.

Of the 97,099 graduates in the population (Quebec institutions did not participate), 43,698 were sampled. The final count of valid responses totalled 29,609, approximately 69% of the sample. The remainder could not be located, refused to be interviewed, were absent for the duration of the survey, or could not be included for other reasons.

When the sample was weighted, women numbered 46,106 and men, 46,293, for a 92,399 total -4,700 less than the graduate population. Most of this difference represented graduates residing outside Canada, although it also included a small number who had not been identified by sex.

The aim of the survey was, of course, more than to contrast the employment status of women and men. This report is merely one of several that have been published (summary report, doctoral graduates) or are underway (geographic mobility, underemployment, relationship of jobs to education).

A deliberate effort has been made to present understandable, easy—to—read statistics. As a result, simple cross—tabular analysis is the basis of the tables and charts.

Because the topic is the female—male difference in education and employment outcomes, the format has been adapted to conform to that orientation.

Every table and all charts except the last show data for both women and men. Thus, the titles do not contain the designation, "by sex." Chart 18 clearly specifies that it deals only with females. This chart and Table 41

¹The questionnaire is reproduced at the end of this report.

are unique in that they were not derived from the survey. The Post-secondary Section of Statistics Canada's Education, Science and Culture Division furnished information on 1978 graduates and 1978—79 enrolment at the bachelor's and first professional degree level.

Nowhere are results given for "all graduates." Rather, five levels of qualification (one— and two—year college diploma, three— and four—year college diploma, bachelor's and first professional degree, master's degree, and doctoral degree) are shown either on separate tables, or as distinct categories in the same table. The reason for maintaining these divisions is that global totals would not be useful and might even be misleading, as quite different individuals would be treated as a homogeneous entity. The results seem to justify this decision: motivations, employment outcomes, and opinions of graduates at different levels vary.

Many tables that show broad fields of study have been further subdivided if the numbers in each discipline were large enough to be reliable and a sufficient number of graduates replied to a particular question. For instance, at the bachelor's level, it was often possible to give data for eight fields in the "Social sciences" category. However, the "Total," which appears beneath them, refers to graduates who received bachelor's degrees in all the social sciences, not just the eight listed in the table.

Because the sample was large (nearly 30,000), overall findings are generally reliable. Nonetheless, reliability diminishes as cross—tabulations become more detailed. To avoid an undue impression of accuracy, all figures have been rounded to the nearest ten, and decimals have been eliminated from percentages. As a result of this rounding, detail may not add to totals.

¹Occasionally, it was possible to show one—year and two—year college graduates separately.

Explanation of Terms

University - A degree-granting institution.

College — An institution offering postsecondary programs that lead to diplomas and/or certificates. For this report, the term includes colleges of applied arts and technology, technical institutes, institutes of applied arts and sciences, community colleges, and establishments that provide training in specialized fields like agriculture, nursing, fisheries, marine technologies, and surveying.

Labour force — Graduates with full—time or part—time employment and those with no job but seeking employment. Excluded are: graduates residing outside Canada, those who indicated they were not seeking employment, and a small number who did not report if their employment was full—time or part—time.

The labour market activity questions answered by the graduates were more numerous and detailed than those asked in the monthly Labour Force Survey. The way responses are aggregated differs as well (for example, the Labour Force Survey treats persons with a job to start in the future as unemployed or not in the labour force). In addition, certain measures such as the full—time employment rate have no counterpart in published Labour Force statistics.

Full—time employment rate — The number of 1976 graduates having obtained full—time employment (30 hours or more of work per week) as a percentage of all 1976 graduates in the labour force. This includes those who had accepted an offer of a job to start in the future as well as those actually working.

"Highly qualified manpower" (HQM) job — A professional job usually requiring a university degree.

The HQM concept is based on a classification system that measures educational and vocational training required for different occupations. Associated with each occupation are two indexes: General Educational Development (GED) and Specific Vocational Preparation (SVP).

GED usually refers to formal education that does not have a particular occupational objective, most often obtained in elementary school, secondary school, college, and university. GED levels range from 1 (less than 7 years of schooling) to 6 (17 or more years).

The SVP index indicates the amount of time needed to acquire the information, techniques, and skills required to perform in an occupation. This training may take place in a school, work, military, or institutional environment, or may even be derived from hobbies. Level 1 of SVP refers to training that consists of only a short demonstration; Level 9 entails more than 10 years.

Ordinarily, an HQM occupation is one with a GED/SVP index that totals 12 or higher, which in most cases means that the incumbent must be a degree—holder. However, occupations with a lower combined level were also examined to determine their possible HQM content. For instance, elementary and preschool teachers were considered HQM, although their average GED/SVP index was only 11. Because of qualification upgrading, all who teach at these levels in the future will require a degree.

Many of the broad categories used to classify occupation groups cover both HQM and non—HQM jobs. (This may be confusing when occupational outcomes are compared as in Charts 3 and 4.) For example, included in "Engineering" are petroleum engineers (average GED/SVP = 14) and petroleum engineering technicians (10). "Social Sciences" contains lawyers (14) and deputy sheriffs (7); museum curators (14) and cata—loguers (10); social workers (12) and camp counsellors (8).

Layout

The main body of this publication consists of a series of tables and charts based on the results of the survey. Each is accompanied by a brief text intended either to summarize the data or to underscore an important point.

The tables and charts are presented in twelve sections:

- I. Educational and Social Characteristics
- II. Motivation
- III. Employment History
 - IV. Employment Status
 - V. Relationship of Job to Education
- VI. Nature of Employment
- VII. Salary
- VIII. Job Satisfaction
 - IX. Retrospective Judgment
 - X. Continuing Education
 - XI. Selected Occupations and Fields of Study
 - XII. Tomorrow's Graduates

A final section, "Plus ça change...", discusses the statistics in the light of historical and international data.



Symbols

The following symbols are used in this publication:

- -- amount too small to be expressed
- nil or zero



I. EDUCATIONAL AND SOCIAL CHARACTERISTICS

Table 1. Field of study, 1976 college graduates, by type of diploma

Almost twice as many women as men graduated with one— or two—year college diplomas, while at the three— and four—year level, they were in a slight minority.

Women were concentrated in "social" and traditionally female fields.

More than a third had earned nursing diplomas, and with the addition of those in other medical and dental services, the proportion in the health sphere amounted to about half the total. Another 16% and 13%, respectively, had graduated from secretarial and community service programs.

Few women had received diplomas in engineering and technology, the discipline that produced more than a third of all male graduates. Women were also underrepresented in other male—dominated areas like data processing, primary industries, and transportation. Business graduates accounted for 6% of the females with one— or two—year diplomas and 11% at the three— and four—year level. This specialty, however, was more popular among men, the corresponding figures being 16% and 17%.

Table 1. Field of study, 1976 college graduates, by type of diploma

Field of study	Type of diploma			
	One- or two-year		Three- or four-year	
	F	М	F	М
	(P	ercentage (distributio	on)
Business, management, and commerce	6	16	11	27
Community services, social welfare, and household science	13	7	4	2
Data processing and computer science	1	3		5
Engineering and related technologies	2	37	7	37
Fine and applied arts	3	5	12	11
General arts and science, education, and law	10	4	6	3
Mass communications	2	5	3	4
Nursing	35	2	36	
Other medical and dental services	9	3	17	4
Primary industries	1	12		2
Secretarial arts and science	16			
Transportation		3		2
Unknown	2	3	2	2
Total: percent	100	100	100	100
number	13,470	7,790	2,240	2,650

Table 2. Field of study, 1976 bachelor's and professional degree recipients

The numbers of women and men who had received bachelor's or first professional degrees were nearly equal, and together the social sciences, humanities, and education accounted for the majority of both sexes. Nonetheless, 14% of the women had earned degrees in languages compared with just under 5% of the men. The disproportion in education was similar: 21% of the women, 10% of the men. Among social science graduates, psychology was the top field for women, while business ranked first among men.

Table 2. Field of study, 1976 bachelor's and first professional degree recipients

	+	
Field of study	F	M
	(Percentag	ge distribution
Agricultural and biological sciences:		-
Biology Household science	3 3	5
Total	8	9
Education:		
Physical education Other education	21	5 10
Engineering and applied sciences	1	9
Fine and applied arts	5	2
Health professions:		
Medicine and dentistry	1	3
Nursing	4	MR 600
Pharmacy	1	1
Total	7	4
Humanities:		
History	4	5 5
Languages Total	14 20	13
Mathematics and physical sciences	3	9
Social sciences:		
Business, management, and commerce	3	10
Economics	1 2	4
Law	1	4
Political science	2	4
Psychology	10	5
Social work	2	1 3
Sociology Total	29	37
General (no specialization)	1	1
Unknown	1	1
Total: percent	100	100
number	27,950	30,140

Table 3. Field of study, 1976 master's and doctoral degree recipients

Male master's degree recipients outnumbered females 2 to 1, and at the doctoral level, the ratio was 5 to 1. Women were concentrated in traditional fields such as education and the humanities, and were underrepresented in male—dominated areas such as engineering and business.

Table 3. Field of study, 1976 master's and doctoral degree recipients

Field of study	Master's d	legree	Doctoral d	egree
	F	M	F	M
	(P	ercentage	distributio	on)
Agricultural and biological sciences	4	5		11
Education	22	19		7
Engineering, mathematics, and physical sciences	4	20		37
Fine and applied arts	3			ese en
Health professions	3	2		4
Humanities	27	12	32	11
Social sciences: Business, management, and commerce	7 8 9 36	20 4 3 40	 41	 29
Unknown				
Total: percent number	100	100 4,930	100 170	100 790

Table 4. Age distribution in June 1978, by qualification level

At every level except the doctoral, women tended to be younger than the men. Nonetheless, higher proportions of women than men in older age groups were among the graduates.

Table 4. Age distribution in June 1978, by qualification level

Age	Qualifi	cation								
	One— or year co diploma	llege	Three— four—ye college diploma	ar	Bachelo or firs profess degree	st	Master' degree	S	Doctora degree	1
	F	М	F	М	F	М	F	М	F	M
				(Percer	ntage di	stribut	ion)			
18-21	13	3					-		-	-
22-24	68	62	73	52	35	25	3	1		
25-27	10	22	18	36	36	47	30	26		3
28–30	2	7	3	7	8	13	23	28	17	18
31–35	2	3	2	3	7	8	19	22	34	48
36–40	2	1			4	3	9	13	24	19
41–45	1	wa 500			3	2	7	6		7
46-50	1			nic ***	. 2	1	4	2		3
51-60	1				2		4	2		Green
61+				***						
No response										
Total:										
percent	100	100	100	100	100	100	1	100	100	100
number	13,470	7,790	2,240	2,650	27,950	30,140	2,280	4,930	170	790

Note: Boxes indicate the most common age group at the different qualification levels.

Table 5. Marital status in June 1978, by qualification level

At higher degree levels, the proportion of single women was greater than that of single men.

Table 5. Marital status in June 1978, by qualification level

1	cation								
year co	11ege	fou r- ye college	ar	or firs	t	Master' degree	S	Doctora degree	1
F	М	F	М	F	М	F	М	F	М
			(Perce	ntage d	listribu	tion)			
58	64	56	59	50	53	40	31	25	16
38	34	41	39	45	45	51	66	63	79
3	1	2	1	4	1	8	2	12	4
1	1	1		1	1	1	1		1
100	100	100	100	100	100	100	100	100	100
13,470	7,790	2,240	2,650	27,950	30,140	2,280	4,930	170	790
	year codiploma F 58 38	F M 58 64 38 34 1 1 1	year college diploma four-ye college diploma F M F 58 64 56 38 34 41 3 1 2 1 1 1 100 100 100	year college diploma four—year college diploma F M F M 58 64 56 59 38 34 41 39 3 1 2 1 1 1 1 100 100 100 100	year college diploma four—year college diploma or first profess degree F M F M F S8 64 56 59 50 38 34 41 39 45 3 1 2 1 4 1 1 1 1 100 100 100 100 100 100	year college diploma four—year college diploma or first professional degree F M F M F M F M S8 64 56 59 50 53 38 34 41 39 45 45 3 1 2 1 4 1 1 1 1 1 1 100 100 100 100 100 100	year college diploma four—year college diploma or first professional degree degree F M F M F M F Section 1 degree M F M F M F College diploma M F M F M F College diploma M F M F M F College diploma CPercentage distribution CPercentage distribution 40 38 40 3 3 4 41 39 45 45 51 3 1 2 1 4 1 8 1 1 1 1 1 1 100 100 100 100 100 100 100	year college diploma four—year college diploma or first professional degree degree F M F M F M F M (Percentage distribution) 58 64 56 59 50 53 40 31 38 34 41 39 45 45 51 66 3 1 2 1 4 1 8 2 1 1 1 1 1 1 1 100 100 100 100 100 100 100 100 100	year college diploma four-year college diploma or first professional degree degree degree F M G 25 33 40 31 25 33 43 41 39 45 45 51 66 63 43 41 41 10 10



II. MOTIVATION

Table 6. Graduates who took the postsecondary program for specific career objectives, by qualification level

Except at the master's level, a higher proportion of female than male graduates claimed that career objectives had motivated them to obtain post—secondary credentials. More than 90% of the college women had such a purpose, compared with 87% of the men. Job considerations were less prevalent among both female and male university graduates, a little more than 70% of whom reported that this had been their reason for postsecondary attendance.

Table 6. Graduates who took the postsecondary program for specific career objectives, by qualification level

Qualification	F	M	
		(Percent)	
One— or two—year college diploma	93	87	
Three— or four—year college diploma	91	87	
Bachelor's or first professional degree	74	71	
Master's degree	69	70	
Doctoral degree	72	71	



III. EMPLOYMENT HISTORY

Table 7. Number of years worked before graduation, by qualification level

Except for doctorate recipients, a higher percentage of women than men had not worked full—time before graduation. The proportion of each sex with no experience declined as the qualification level rose. Nearly half the male and two—thirds of the female college graduates had never had a full—time job, but only about a quarter of the Ph.D.s — 27% of the men and 23% of the women. The trend reversal among doctorates may result from the older age profile of the women (Table 4).

Table 7. Number of years worked before graduation, by qualification level

Work	Qualifi	cation								
before	One— or year co diploma	11ege	1	four—year college		Bachelor's or first professional degree		S	Doctoral degree	
	F	М	F	М	F	М	F	М	F	М
				(Perce	ntage d	istribu	ition)			
Never worked full—time	66	48	69	59	56	54	30	27	23	27
Less than 1 year	4	3	5	3	1	1		1		m
1-2 years	15	20	12	15	9	12	13	11		12
3—4 years	9	15	8	15	12	16	20	19	24	24
5—6 years	3	7	2	4	6	5	8	10	16	15
7 years and more	3	6	3	. 4	15	11	27	30	26	21
Unknown					1	1				
Total: percent number	100	100 7,790	100	100 2,650	100 27,950	100 30,140	100 2,280	100 4,930	100 170	100 790

Table 8. Success rate of job search methods, college graduates, by type of diploma

For both female and male college graduates, direct application to employers was the most common and the most effective job search method.

Table 8. Success rate of job search methods, college graduates, by type of diploma

Job search method		Type of dipl	Loma		
		One— or two-	-year	Three- or fo	our-year
		Percent of all job—seekers who used this method	Success rate*	Percent of all job—seekers who used this method	Success rate*
Direct application to employer	F M	63 61	75 72	66	78 65
Direct application to previous employer	F	29	69	32	68
	M	35	70	40	67
Friends or relatives	F	32	62	29	61
	M	34	69	33	66
College placement office	F	25	60	22	51
	M	32	63	49	62
Instructor	F	34	57	35	58
	M	35	53	38	51
Private employment	F	13	56	13	46
agency	M		41	18	39
Newspaper advertisement	F	42	50	37	50
	M	40	53	45	48
Professional association or union	F M	11 11	45 34	13	40 32
Public employment	F	36	35	32	27
agency	M	41	41	39	33

^{*}Percent of job-seekers who received an offer of employment.

Table 9. Success rate of job search methods, university graduates, by degree level

Few differences were apparent in the tendency of female and male graduates to use various job search methods or the effectiveness of these techniques. Direct applications to employers were most frequent and most successful.

Table 9. Success rate of job search methods, university graduates, by degree level

Job search method	Degree					
	Bachelon first p	r's or rofessional	Master's		Doctoral	
	Percent all job- seekers who used this met	d	Percent of all job—seekers who used this method	rate*	Percent of all job—seekers who used this method	rate*
Direct application to employer	F 57 M 57	74 70	50 45	71 74	46 48	73 76
Direct application to previous employer	F 33 M 38	73 72	34 30	70 71	25 23	81 79
Friends or celatives	F 30 M 32	62 63	24 19	65 64	20	73
Instructor	F 23 M 23	53 55	31 29	62 63	37 46	72 71
Newspaper Idvertisement	F 39 M 38	49 52	37 33	56 59	30 39	60 71
Professional association or union	F 14 M 14	44 37	15 12	31 35	16	 38
Private employment agency	F 12 M 13	41 38	9	37 32	6	8
University place— ment office	F 22 M 31	38 48	23 25	46 51	19 16	45 35
Public employment	F 36 M 37	32 36	28 20	23 22	14	 16

^{*}Percent of job-seekers who received an offer of employment.



IV. EMPLOYMENT STATUS

Table 10. Employment status, by qualification level and marital status, 1978

Marriage had a strong relationship to the graduates' employment status, tending to increase full—time employment among men and decrease it among women. The proportion of single women working full—time was at least 7 percentage points higher than that of married women. Of the degree—holders, single women were more likely to have full—time jobs than were single men.

At all qualification levels, the percentage of women working part—time was always greater than the percentage of men, and it was a more common practice among married than single women.

The unemployment rate (i.e., looking for a job) of single women was less than or equal to that of single men. Marriage, again, was associated with opposite trends for female and male graduates: a higher rate of unemployment among married women, and a lower rate among married men.

Overall, female graduates were more likely than the males to be neither working nor looking for a job. This was particularly true of married women, at least 9% of whom were in this situation. Their primary reason was family responsibilities.

Table 10. Employment status, by qualification level and marital status, 1978

Qualification and marital status	Employment s	tatus			Total*
	Working full—time or accepted a full—time job	Working part—time	Looking for a job	Not working and not looking for a job	
		(Pe	rcentage distri	bution)	1
ne— or two—year college diploma:					
Single	F 88 M 91	5 2	4 4	2 2	100
Married	F 74 M 94	11 1	5 3	9	100
Widowed, separated, divorced	F 75 M 88				100 100
Total**	F 82 M 91	7 2	5 4	5 2	100
hree— or four—year college diploma:					
Single	F 85 M 88	4 3	6	6 2	100 100
Married	F 72 M 93	10 2	5 3	12 1	100
Widowed, separated, divorced	F M				100
Total**	F 79 M 90	7 2	4 5	9 2	100
Bachelor's or first professional degree:					
Single	F 82 M 81	6 4	6 7	6 8	100 100
Married	F 75 M 90	7 2	5 3	11 4	100 100
Widowed, separated, divorced	F 78 M 80				100
Total**	F 79 M 85	7 3	6 5	8	100 100
Master's degree:	The state of the s				1
Single	F 79 M 74	5 7	4 4	12	100 100
Married	F 71 M 87	9 3	5 2	. 14 8	100 100
Widowed, separated, divorced	F 81 M 77				100
Total**	F 75 M 83	7 4	4 3	13 10	100
Doctoral degree:					
Single	F 93 M 85	7			100
Married	F 76 M 94				100
Widowed, separated, divorced					100
Total**					100
	ri 92				100

^{*}Includes graduates who did not indicate their employment status.

Note: The sum of the columns headed "Working full—time or accepted a full—time job" and "Working part—time" is not equivalent to the rates on Chart 1. Table 10 shows the percentages of all graduates in various employment situations, whereas Chart 1 indicates the number of graduates who obtained employment as a percentage of the total number in the labour force.

^{**}Includes graduates who did not indicate their marital status.

Chart 1. Employment rate, by qualification level, 1978

At all qualification levels, the women's full—time employment rate was lower than the men's, but their rate of part—time employment was higher.

Chart — 1
Employment rate, by qualification level, 1978

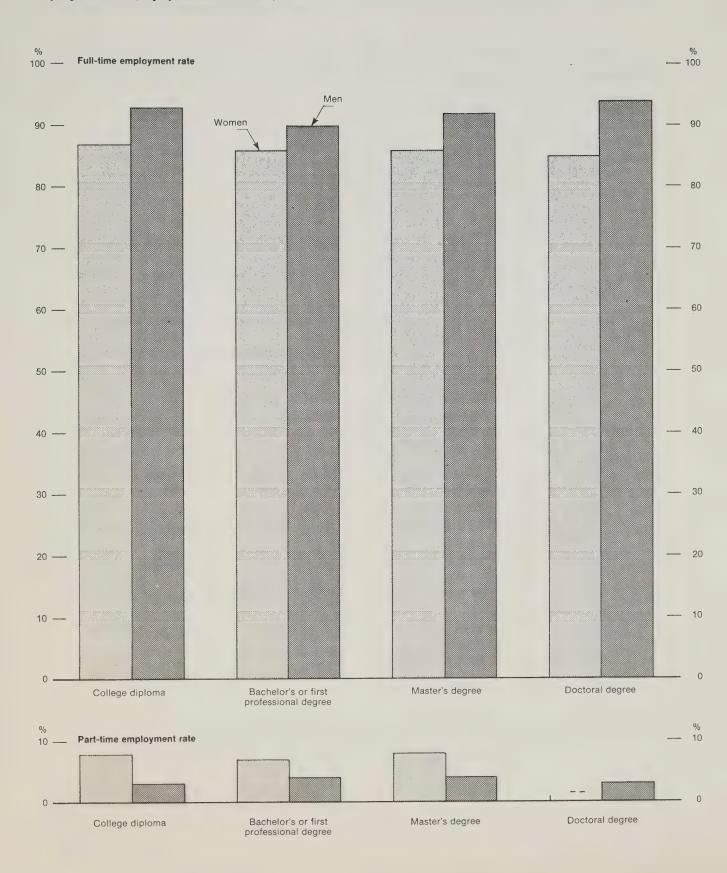


Table 11. Full—time employment rate, college graduates, by field of study and type of diploma, 1978

Female college graduates in most fields of study had a lower full—time employment rate than men.

Table 11. Full—time employment rate,* college graduates, by field of study and type of diploma, 1978

Field of study	Type of d	liploma		
	One- or t	wo-year	Three— or	four—
	F	М	F	M
		(Per	cent)	1
Business, management, and commerce	89	94	88	92
Community services, social welfare, and household science	83	91	83	100
Data processing and computer science	90	99		100
Engineering and related technologies	88	95	91	94
Fine and applied arts	87	79	65	73
General arts and science, education, and law	84	88	87	78
Mass communications	88	93	82	93
Nursing	85	97	91	
Other medical and dental services	90	96	92	96
Primary industries	87	93		94
Secretarial arts and science	91			
Transportation		90		97
Total	87	93	87	91

^{*}Includes graduates who had accepted a full—time job to start in the future; excludes graduates who were not working and not looking for a job.

Table 12. Full—time employment rate, bachelor's and first professional degree recipients, by field of study, 1978

In nine fields of study, the full—time employment rate of men with a bachelor's degree exceeded that of women by at least 4 percentage points.

Table 12. Full-time employment rate,* bachelor's and first professional degree recipients, by field of study, 1978

Field of study	F	M
	(Per	cent)
Acmicultural and biological acioneca.		
Agricultural and biological sciences: Biology	83	83
Household science	88	
Total	86	87
Education:		
Physical education	83	91
Other education	90	92
Engineering and applied sciences	90	94
Fine and applied arts	-67	77
Health professions:		
Medicine and dentistry	99	98
Nursing	95	
Pharmacy	94	94
Rehabilitation	92	
Total	94	97
Humanities:		
History	87	89
Languages	84	86
Total	85	88
Mathematics and physical sciences	82	90
Social sciences:		
Business, management, and commerce	95	96
Economics	89	87
Geography	87	89
Law	88	92
Political science	83	87
Psychology	84 87	83
Social work	83	92
Total	86	90
General (no specialization)	89	89
Total	86	90

^{*}Includes graduates who had accepted a full—time job to start in the future; excludes graduates who were not working and not looking for a job.

Table 13. Full-time employment rate, master's and doctoral degree recipients, by field of study, 1978

The full—time employment rate of women with master's degrees rose above 90% in only three fields — agricultural and biological sciences, business, and social work; their overall rate was 86%, as opposed to 92% for men. Among doctorates, the women's full—time employment rate was lower than that of men in the two fields where numbers were large enough to be shown.

Table 13. Full—time employment rate,* master's and doctoral degree recipients, by field of study, 1978

Field of study	Master's	degree	Doctoral	degree
	F	М	F	М
		(Perc	ent)]
Agricultural and biological sciences	92	88		93
Education	88	97		97
Engineering, mathematics, and physical sciences	78	93		93
Fine and applied arts	61			as
Health professions	88	94		100
Humanities	85	83	75	81
Social sciences: Business, management, and commerce Psychology Social work Total	91 83 91 87	96. 73 90 92	 85	 97
Tota1	86	92	85	94

^{*}Includes graduates who had accepted a full—time job to start in the future; excludes graduates who were not working and not looking for a job.



V. RELATIONSHIP OF JOB TO EDUCATION

Chart 2. Graduates in full—time jobs not related to their education, by qualification level, 1978

At every qualification level, a smaller proportion of female than male graduates considered their jobs unrelated to their education.

 $_{\rm Chart\,-2}$ Graduates in full-time jobs not related to their education, by qualification level, 1978

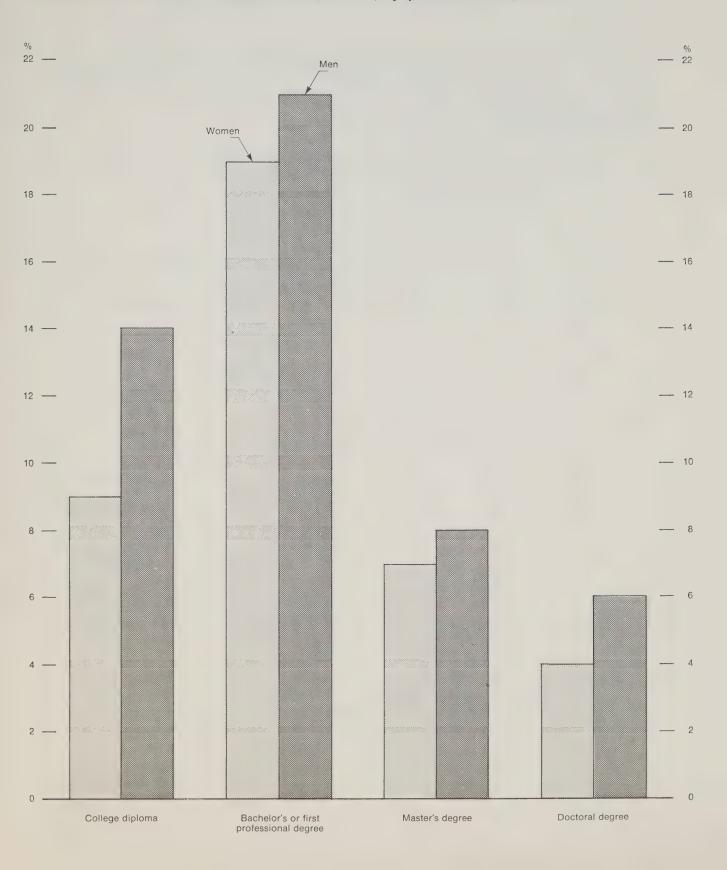


Table 14. College graduates in full—time jobs not related to their education, by field of study and type of diploma, 1978

Overall, female college graduates were less likely than the males to end up in a job unrelated to their education, but in fields where the numbers of both sexes were large enough to compare (business, fine and applied arts), the opposite was true.

Table 14. College graduates in full—time jobs not related to their education, by field of study and type of diploma, 1978

Field of study	Type of di	iploma		
	One- or tw	vo-year	Three- or	four-year
	F	М	F	М
		rcent of a	ll graduat —time)	es
		egyprometry of the control of the co		
Business, management, and commerce	21	19	16	13
Community services, social welfare, and household sciences	12	ma age	an ~	
Data processing and computer science				7
Engineering and related technologies	en	13	qua mo	9
Fine and applied arts	32	26		
General arts and science, education, and law	17			
Mass communications		17		
Nursing/Other medical and dental services	3			
Primary industries/Transportation		14		maga otos
Secretarial arts and science	8			
Total	9	15	9	12

Table 15. Bachelor's and first professional degree recipients in full—time jobs not related to their education, by field of study, 1978

The percentages of bachelor's degree recipients in jobs unrelated to their education were much higher than at the college level, and the tendency for the proportion of men to be greater persisted. Virtually none of those with professional qualifications (medicine, dentistry, law) had unrelated jobs. On the other hand, around a third of the humanities graduates did not find work in their field. The percentage was particularly high in history, hovering close to 40%, although the proportion of women was smaller. About a quarter of the social science graduates were employed outside their field, notably those with degrees in political science, psychology, or sociology.

At higher degree levels (master's and doctoral), the number of female graduates working in jobs not related to their education was too small to be shown by field of study.

Table 15. Bachelor's and first professional degree recipients in full—time jobs not related to their education, by field of study, 1978

Field of study	F	M
	(Percent graduate full-tim	s working
Agricultural and biological sciences:		
Biology	36	37
Household science		
Tota1	22	30
Education:		
Physical education	22	21
Other education		12
Engineering and applied sciences		
engineering and applied sciences		8
Fine and applied arts	19	22
Health professions:		
Medicine and dentistry		
Nursing		
Pharmacy		
Rehabilitation		
Total		
Humanities:		
History	37	40
Languages	25	34
Total	27	35
Mathematics and physical sciences		20
Social sciences:		
Business, management, and commerce		11
Economics		35
Geography	28	31
Law		
Political science	37	42
Psychology	28	27
Social work	MW 848	
Sociology	33	32
Total	26	23
General (no specialization)		30
m 1	10	0.1
Total	19	21



VI. NATURE OF EMPLOYMENT

Table 16. Occupation groups of one— and two—year college diploma recipients employed full—time, by field of study, 1978

Graduates of most one— and two—year college programs tended to enter occupations that seem logical outcomes of their studies. Women were concentrated in a few categories. For example, about 93% who graduated in medical and dental services were employed in medicine or health occupations, as opposed to 65% of the men. In some instances, there was a distinct difference in the destinations of similarly qualified women and men. The most frequent occupational outcome for women with business diplomas was clerical, while their male counterparts were more apt to hold managerial or sales positions.

Occupation groups of one— and two-year college diploma recipients employed full-time, * by field of study, 1978 Table 16.

Field of study	H E 60	Total number of graduates	Single largest occupation group	Percent of total number in this group
management, and	F4 >	750	Clerical Managerial/Sales	43
Community services, social welfare, and household science		1,320	Social sciences Service	40
	ĿΣ	130	Natural sciences, engineering, mathematics Natural sciences, engineering, mathematics	63 64
Engineering and related technologies	ĿΣ	230	Natural sciences, engineering, mathematics Natural sciences, engineering, mathematics	32 37
Fine and applied arts	E Z	290 270	Artistic, literary, performing arts	33
General arts and science, education, and law	ĿΣ	1,010	Teaching Service	36
Mass communications	L X	200	Artistic, literary, performing arts Artistic, literary, performing arts	49 25
Medical and dental services	ĿΣ	4,890	Medicine, health Medicine, health	93
Primary industries	ĿΣ	110	 Primary***	777
Secretarial arts and science	ĿΣ	1,870	Clerical	85

*Includes graduates who had accepted a full-time job to start in the future.

**Same percentage in each occupation group.

***Includes farming, fishing, hunting, trapping, mining, quarrying.

Table 17. Occupation groups of three— and four—year college diploma recipients employed full—time, by field of study, 1978

Three— and four—year college graduates exhibited the same patterns of occupational outcomes that prevailed among those with one— or two—year diplomas. Except for engineering graduates, women were less dispersed among various occupations than men. And at this level, too, a woman's business diploma was apt to eventuate in a clerical job, while men tended to have managerial positions.

Occupation groups of three— and four—year college diploma recipients employed full—time,* by field of study, 1978 Table 17.

Field of study	To	Total number of graduates	Single largest occupation group	Percent of total number in this group
	-			
Business, management, and commerce	H Z	200	Clerical Managerial	48
Data processing and computer science	ĿΣ	130	Natural sciences, engineering, mathematics Natural sciences, engineering, mathematics	74
Engineering and related technologies	ĿΣ	120 910	Natural sciences, engineering, mathematics Natural sciences, engineering, mathematics	33
Fine and applied arts	ĿΣ	150 210	Artistic, literary, performing arts Artistic, literary, performing arts	44
General arts and science, education, and law	ĿΣ	110	Clerical	43
Mass communications	ĿΣ	50 100		35
Medical and dental services	μΣ	980	Medicine, health Medicine, health	93

*Includes graduates who had accepted a full-time job to start in the future.

Table 18. Bachelor's and first professional degree recipients employed full—time in "highly qualified" and non—"highly qualified manpower" jobs, by field of study, 1978

A larger percentage of female than male bachelor's degree recipients were employed in "highly qualified manpower" (HOM) jobs: 78% versus 71%. Proportions of both sexes were especially high in the health professions, law, and education, ranging from 84% to more than 90%.

Contrariwise, about half the women and men with biology degrees were in non—HQM positions. The situation was nearly as bad for graduates of fine arts, history, English, political science, psychology, and sociology, although the proportions of women in non—HQM jobs were below those of men.

Table 18. Bachelor's and first professional degree recipients employed full-time* in "highly qualified" and non-"highly qualified manpower" jobs, by field of study, 1978

Field of study	Classi	ficatio	on of jo	Ъ		
	Highly qualif manpow	ied	Non—hi qualif manpow	ied	Total	
	F	М	F	М	F	M
		(Per	rcentage	distri	ibution)
Agricultural and biological sciences:						
Biology	49	47	51	53	100	100
Household science	73		27		100	100
Total	60	50	40	50	100	100
Education:					1.00	
Physical education	80	75	20	25	100	100
Other education	90	89	10	11	100	100
Engineering and applied sciences	84	79		21	100	100
Fine and applied arts	66	60	34	40	100	100
Health professions:						
Medicine and dentistry	94	99			100	100
Nursing	96				100	100
Pharmacy	81	78			100	100
Rehabilitation	99				100	100
Total	92	94	8		100	100
Humanities:	75	62	25	38	100	100
English	75	73	23	27	100	100
French	69	73	23	2/	100	100
Other languages	64	54	36	46	100	100
History	73	60	27	40	100	100
Total	/3	00	2/	140	100	
Mathematics and physical sciences	76	74	24	26	100	100
Social sciences:						
Business, management, and commerce	66	71	34	29	100	100
Economics	68	66	32.	34	100	100
Geography	68	64	32	36	100	100
Law	84	93	27	4.0	100	100
Political science	73	52	27	48	100	100
Psychology	73	63	27	37	100	100
Social work	77	55	23	45	100	100
Sociology Total	73	68	27	32	100	100
General (no specialization)	76	59		41	100	100
Total	78	71	22	29	100	100

^{*}Includes graduates who had accepted a full-time job to start in the future.

^{**}A professional job usually requiring a university degree.

Table 19. Master's and doctoral degree recipients employed full—time in "highly qualified" and non—"highly qualified manpower" jobs, by field of study, 1978

At successively higher degree levels, the proportion of graduates in "highly qualified manpower" (HQM) positions rose. As was the case with bachelor's degrees, master's and doctoral graduates of agricultural and biological sciences were the least well—represented in HQM jobs. The greatest differences between women and men were in health fields at the master's level and in humanities at the doctoral level. In the former, 93% of the females had HQM jobs, as opposed to 81% of the males. In the latter, proportions were almost reversed: 90% of the men with humanities Ph.D.s were in HQM positions, 78% of the women.

Table 19. Master's and doctoral degree recipients employed full—time* in "highly qualified" and non—"highly qualified manpower" jobs, by field of study, 1978

Field of study	Mast	er's	deg	gree			Doct	oral	deg	ree		
	Clas	sif	icati	on o	of jo	ob	Clas	sifi	cati	on c	of jo	b
	ном*	rx	Non	-HQM	Tota	1	ном*	rk	Non-	HQM	Tota	1
	F	M	F	М	F	М	F	М	F	М	F	М
		1	(Perd	centa	age d	listr	ibut	ion)	į.	1	,
Agricultural and biological sciences	68	66		34	100	100		72				100
Education	95	95		5	100	100		96				100
Engineering, mathematics, and physical sciences	85	87		13	100	100		86		14		100
Fine and applied arts												
Health professions	93	81			100	100		81				100
Humanities	81	78	19	22	100	100	78	90			100	100
Social sciences: Business, management, and commerce	79 85 87 83	86 89 90 85	 17	14 15	100 100 100 100	100 100 100 100	 96	 95			 100	 100
Total	85	86	15	14	100	100	87	88		12	100	100

^{*}Includes graduates who had accepted a full—time job to start in the future.

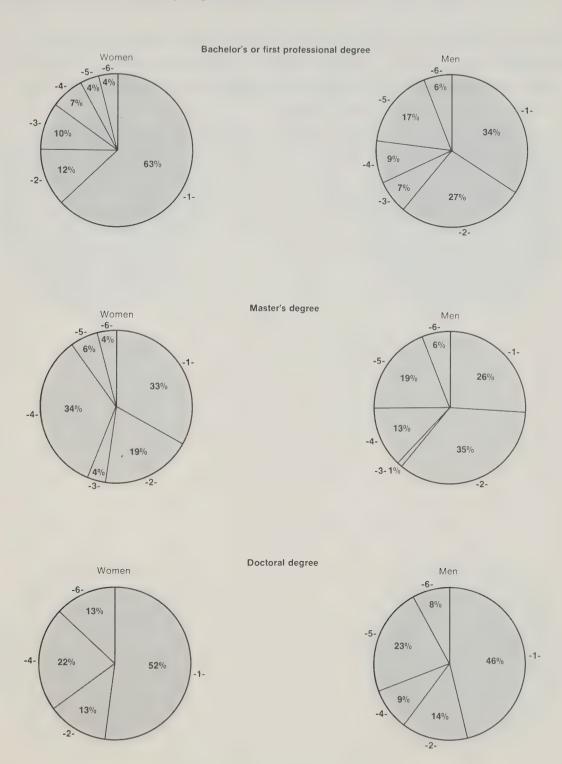
**A professional job usually requiring a university degree.

Chart 3. Occupation groups of university graduates employed full—time in "highly qualified manpower" jobs, by degree level, 1978

At all degree levels, women who secured "highly qualified manpower" jobs tended to be clustered in relatively few occupation groups, notably teaching, while men were more dispersed.

Chart — 3

Occupation groups of university graduates employed full-time in "highly qualified manpower" jobs, by degree level, 1978



- -1- Teaching
- -2- Managerial, administrative
- -3- Health, medicine

Legend

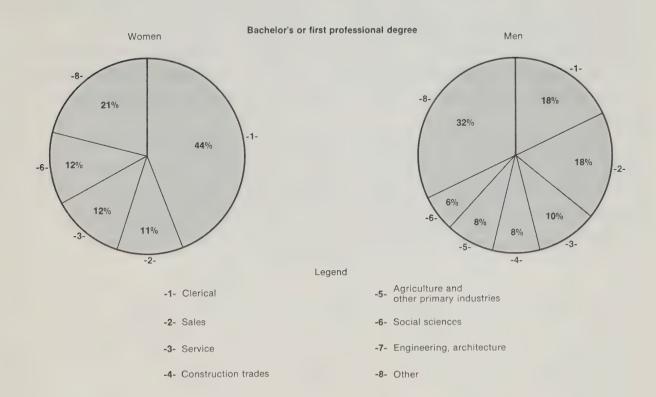
- -4- Social sciences
- -5- Mathematics, physical sciences, engineering, architecture
- -6- Other

Chart 4. Occupation groups of university graduates employed full—time in non—"highly qualified manpower" jobs, by degree level, 1978

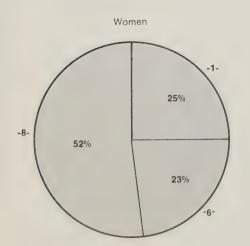
Clerical jobs were the foremost occupational destination for female degree—holders who failed to obtain "highly qualified manpower" positions. Men were only half as likely to end up in the clerical category, and they were just as apt to be employed in sales.

The large percentages (about 50%) of master's degree recipients identified as "Other" non-HQM may be misleading. "Other" includes graduates in occupations actually listed in the legend. Their numbers, however, were too small to be reliable, and so had to be grouped in the catchall category.

Chart — 4
Occupation groups of university graduates employed full-time in non"highly qualified manpower" jobs, by degree level, 1978



Master's degree



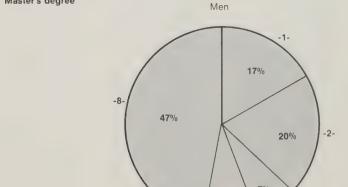


Table 20. Level of education specified by employers of graduates working full—time, by graduates' qualifications, 1978

Women with college diplomas were more likely than men to have jobs that formally matched their qualifications. To some extent, this may be attributable to the large number who graduated from job—specific fields such as nursing and secretarial arts. Proportions, however, were higher at the one—and two—than at the three—and four—year levels. Conversely, the percentages of men in positions requiring only secondary completion exceeded those of women.

More than half the bachelor's and doctoral degree recipients of both sexes were employed in "commensurate" jobs. But at the master's level, this was true of just one—quarter of the men and a little more than a third of the women. Graduates with master's degrees, especially men, were more apt to be in a position requiring only a bachelor's degree.

Level of education specified by employers of graduates working full-time, $\!\!\!\!\!\!\!^*$ by graduates' qualifications, 1978 Table 20.

Level of education specified by	Graduates	-	qualifications	ions						
employer	One— or year co diploma	or two- college ma	Three— or four—year college diploma	or ar	Bachelor's or first professiona degree		Master' degree	w	Doctora	
	ഥ	Σ	ĬΉ	M	ĮΞų	M	ĺΉ	M	Ţij	M
				(Percentage		distribution	tion)			
Secondary completion	12	15	00	13	∞	6	m	m	1	;
Some postsecondary	8	5	2	4	9	5	1	2	1	1
One— or two-year college diploma	09	43	20	14	∞	7	1	2	ı	I
Three— or four—year college diploma	4	m	41	36	2		1	I	ļ t	1
Bachelor's or first professional degree	H	l l	ري	1	54	55	0+)	51	1 1	13
University diploma or certificate	1	H	7	1	2	m	1	2	-	<u></u> -
Master's degree	!	1	I	1		2	. 39	25	29	22
Doctoral degree	I I	1	1	1	1	I I	1	1	54	55
Not specified	16	28	18	29	12	17	7	6	- {	;
Unknown	7	4	4	c	7	m	m v	2	1	3 E
Total: percent	100	100	100	100	100	100	100	100	100	100
number	10,750	6,620	1,690	2,260	21,080	23,380	1,630	3,870	130	069
Lotrong had other actual actual actual	a	f.,11-+;mo	+	+ + + + + + + + + + + + + + + + + + + +	4 0 4 4	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				

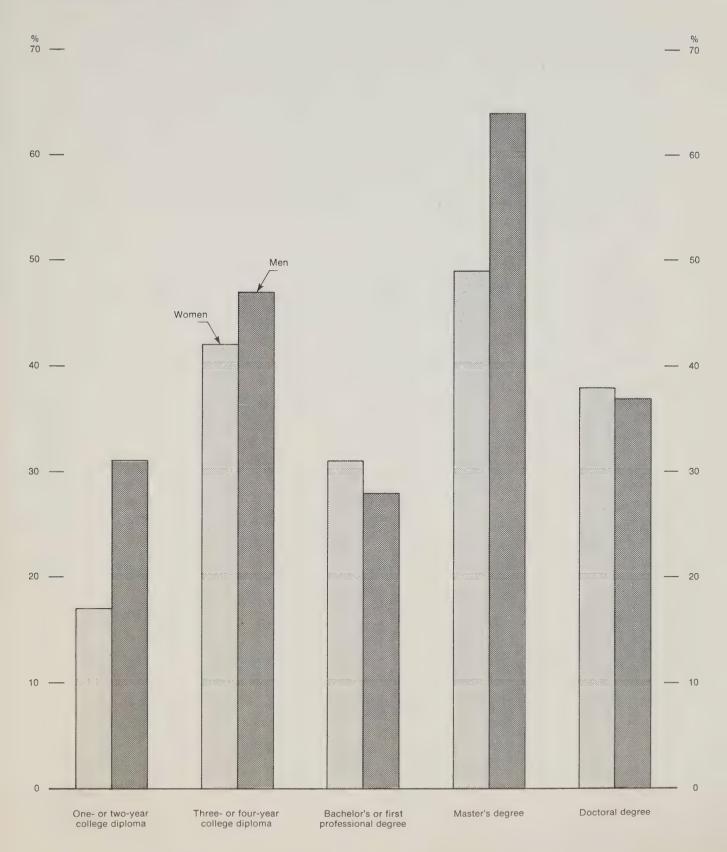
Includes graduates who had accepted a full-time job to start in the future.

Note: Boxes indicate the most common level of education specified by employers.

Chart 5. Graduates working full—time who considered themselves underemployed, by qualification level, 1978

Female college graduates and those with master's degrees were less likely than males to consider themselves underemployed. The opposite was true of bachelor's and doctoral degree—holders.

 $_{\rm Chart\,-5}$ Graduates working full-time who considered themselves underemployed, by qualification level, 1978





VII. SALARY

Table 21. Salary range of graduates employed full—time, by qualification level, 1978

At every qualification level, female graduates were more likely to earn less than male graduates. Over half the women with one—year college diplomas were working for less than \$10,000, while nearly 70% of the men made more. At the two—, three—, and four—year diploma levels, the proportion of men making at least \$14,000 (about 43%) was more than twice that of women (15% to 20%). Of those with bachelor's degrees, 47% of the women were in the \$14,000+ salary range, in contrast to 59% of the men. And among the master's graduates, fewer than a third of the women, but over half the men, were earning more than \$20,000 a year.

Table 21. Salary range of graduates employed full—time,* by qualification level, 1978

Qualification	Less than \$10,000		\$14,000 \$19,999		Unknown or no response	
		(Pero	centage d	istribut	ion)	
One—year college diploma I		33 41	5 27		9	100 100
Two—year college diploma I		48 39	15 34	8	7 7	100 100
Three— or four—year college diploma I	1	51 40	21 39	5	6	100 100
Bachelor's or first pro- fessional degree		30 23	35 42	12 17	7 9	100
Master's degree	6 4	12 6	45 26	30 55	7 9	100 100
Doctoral degree	7 1	7	24	60	8	100

^{*}Includes graduates who had accepted a full-time job to start in the future.

Chart 6. Salary range of graduates employed full—time, with no prior work experience, by qualification level, 1978

Male graduates who previously had worked less than a year earned more than women with equivalent education and experience.

Chart — 6
Salary range of graduates employed full-time, with no prior work experience, by qualification level, 1978

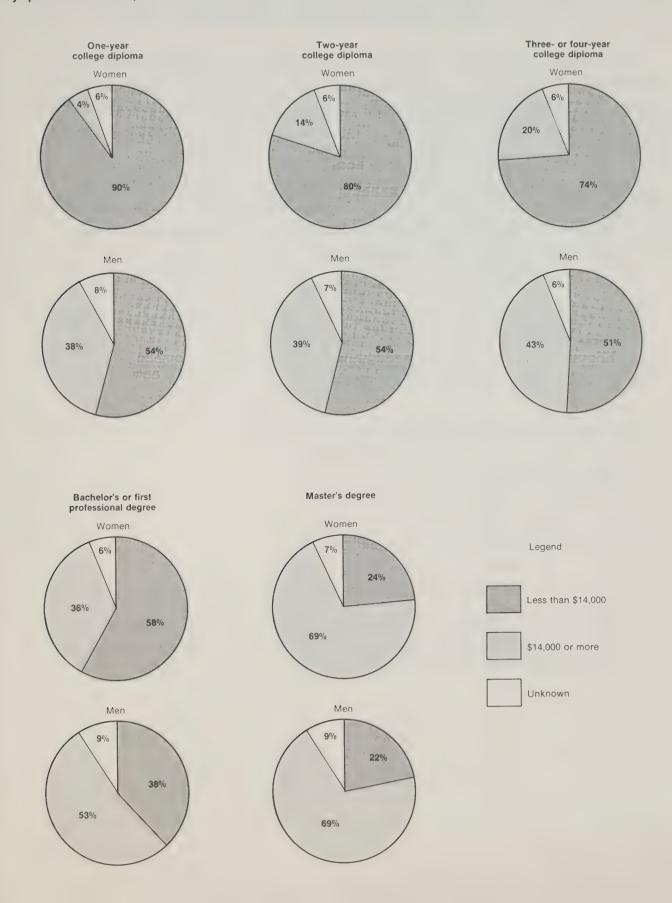


Table 22. Median 1978 salary, graduates employed full—time, by qualification level and prior work experience

The earnings gap between female and male graduates was apparent at almost every level of qualification and experience. Except for those with bachelor's degrees and five or six years of prior work experience, women had lower median salaries. Typically, the difference amounted to between \$1,000 and \$2,000 annually, although it rose as high as \$4,000. The median salary of a woman with a bachelor's degree and no previous experience (\$13,090) was less than that of a man with a one—year college diploma and no experience (\$13,270). Nonetheless, for degree—holders, work experience had a stronger relationship to median salary than did the graduates' sex.

Table 22. Median 1978 salary, graduates employed full-time,* by qualification level and prior work experience

Qualification		Work ex	perienc	e befor	e gradu	ation *	*
		worked	Less than 1 year	1	3—4 years	5—6 years	7 years or more
					\$		
One—year college diploma	F M	9,090 13,270	-	9,520 12,960	10,690	_ _	_
Two-year college diploma		11,250 13,320					
Three— or four—year college diploma		12,400					
Bachelor's or first professional degree		13,090 14,630					
Master's degree		16,060 17,530		15,640 18,630			
Doctoral degree	F M	19,490	_	_ 21,410	20,950	_ 21,520	23,870 26,400

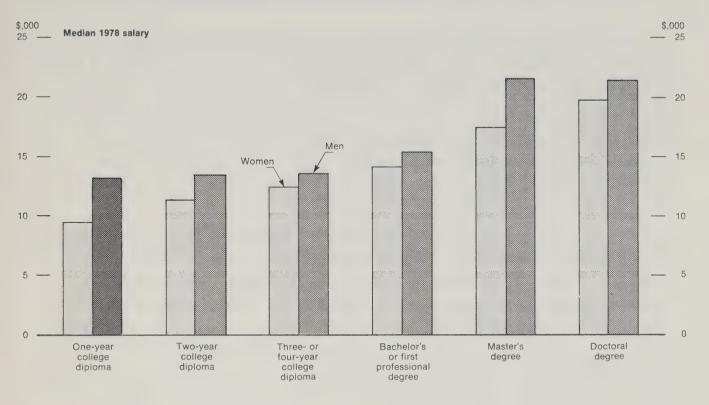
^{*}Includes graduates who had accepted a full-time job to start in the future.

^{**}Because prior work experience was not necessarily related to the graduates' jobs, median salaries of those with more experience were not always higher.

Chart 7. Median 1978 salary and satisfaction with salary, graduates employed full—time, by qualification level

At all qualification levels, women invariably earned less than men, but those with one—year college diplomas or bachelor's degrees were more satisfied with their salary than their male counterparts.

Chart — 7
Median 1978 salary and satisfaction with salary, graduates employed full-time, by qualification level



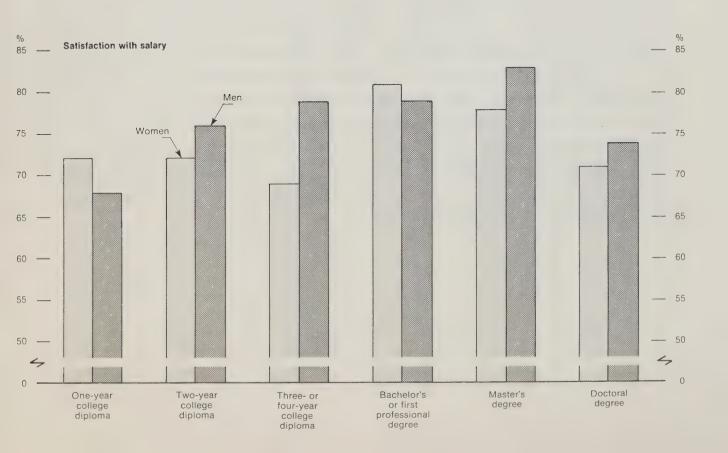


Table 23. Satisfaction with salary, college graduates employed full-time, by field of study and type of diploma, 1978

Female graduates of one—year college programs had a median salary of \$9,520, in contrast to \$13,240 for the men. Yet overall, the women were more satisfied: 72% versus 68%. Numbers were not large enough to compare women and men in the same fields. However, satisfaction was high (80%) among women who had graduated from nursing and men who had taken engineering or technology programs. Least satisfied were women with diplomas in other medical and dental services and community services, although their median salaries were not the lowest.

The earnings gap narrowed somewhat between female and male college graduates with two—year diplomas: \$11,350 for women, \$13,640 for men. About three—quarters of each sex declared themselves satisfied with their salaries, but the women expressed slightly more discontent. The widest divergence was among general arts and science graduates. Just 61% of these women, who were earning about \$4,000 less than the men, were satisfied with their income. On the other hand, three—quarters of the men reported satisfaction. Fine and applied arts graduates were the least content of all — only 53% of the women and 65% of the men said they were satisfied — and indeed, their earnings were lowest.

Women with three— or four—year college diplomas were considerably less pleased with their salaries than were their male counterparts: 69% versus 79%, for annual medians of \$12,460 and \$13,760, respectively. The greatest differences in satisfaction were between female and male graduates of general arts and science, and community services and social welfare. Nor was satis—faction prevalent among fine and applied arts graduates; but although the women were earning about \$1,000 less than the men, they declared themselves more satisfied. Gaps of close to \$3,000 had little effect on the relative satisfaction of women and men in business and engineering.

Table 23. Satisfaction with salary, college graduates employed full—time, by field of study and type of diploma, 1978

Field of study		Type of	diploma				
		One-year	c	Two-yea:	r	Three- year	or four—
		Median salary	Percent satis— fied	Median salary	Percent satis- fied	Median salary	Percent satis- fied
		\$		\$		\$	
Business, management, and commerce	F M			10,240	69 79	10,760 13,730	78 81
Community services, social welfare, and household science	F M	10,790	63	10,460 13,140	67 72	9,640 12,820	55 78
Data processing and computer science	F M	——————————————————————————————————————		12,050 13,640	89 78	14,930	90
Engineering and related technologies	F M	- 13,460	 79	11,270 14,020	77 77-	11,310 14,010	75 80
Fine and applied arts	F M	——————————————————————————————————————		8,970 10,880	53 65	9,780 10,740	65 59
General arts and science, education, and law	F M	9,300	77	9,300 13,190	61 76	9,150 13,750	63 90
Mass communications	F M			10,210 12,950	59 68	9,690 11,750	76 80
Nursing	F M	11,000	82	12,830 14,340	75 71	13,380	66
Other medical and dental services	F M	9,330	62	12,900 12,890	79 69	13,030 15,000	75 75
Primary industries	F M	_		9,760 13,550	71 81	- 13,470	88
Secretarial arts and science	F M	9,280	76 	9,030	76 	_	
Transportation	F M	Granus Granus		- 13,570	69	14,980	
Total	F M	9,520 13,240	72 68	11,350 13,640	72 76	12,460 13,760	69 79

Table 24. Satisfaction with salary, bachelor's and first professional degree recipients employed full—time, by field of study, 1978

In every field of study, the median salary of women with bachelor's degrees was lower than that of men. However, actual dollar amounts were not a reliable indicator of the level of satisfaction. Female graduates of history, business, economics, and education were making less than the men, but reported higher satisfaction. The greatest salary differences were between women and men with degrees in medicine and dentistry (\$5,800), biology (\$2,600), and psychology (\$2,000).

Table 24. Satisfaction with salary, bachelor's and first professional degree recipients employed full—time, by field of study, 1978

Field of study	Median	salary	Percent	
	F	М	F	M
		\$		
Agricultural and biological sciences: Biology Household science Total	11,460 13,680 12,580	14,010	78 78 77	76 77
Education: Physical education Other education	13,740 14,850	15,010 15,780	75 87	82
Engineering and applied sciences	_	17,680		78
Fine and applied arts	12,800	13,660	81	80
Health professions: Medicine and dentistry Nursing Pharmacy Rehabilitation Total	15,500 14,690 17,630 15,740 15,220	21,330 - 17,740 - 18,260	76 81 79 78 79	74 81 - 78
Humanities: History Languages Total	13,030 13,790 13,740	14,100 15,190 14,320	83 80 81	77 83 81
Mathematics and physical sciences	13,850	15,170	77	80
Social sciences: Business, management, and commerce Economics Geography Law Political science Psychology Social work Sociology Total	14,030 13,640 13,790 16,640 12,920 13,400 14,750 13,670 13,760	15,120 14,250 14,960 17,470 14,280 15,480 15,860 15,010 15,220	78 83 82 81 72 77 67 75	74 80 84 86 80 80 73 75
General (no specialization)	12,990	13,850	84	73
Total	14,150	15,390	81	79

Table 25. Satisfaction with salary, master's and doctoral degree recipients employed full—time, by field of study, 1978

Men with master's degrees had the highest median salary of all graduates — \$21,770 — and reported the highest level of satisfaction — 83%. The median salary for women with master's degrees was \$17,550, and 78% maintained that they were satisfied. Thus, for men, the income boost between the bachelor's and master's degree amounted to \$6,380 and their satisfaction rose. The corresponding increment for women was \$3,400, and their satisfaction dropped. The master's was the level at which the gap in median earnings between men and women was widest. In all fields except the humanities, the difference ranged from about \$2,500 to more than \$4,000. And in every field but engineering and mathematics, women were less satisfied.

Salary satisfaction for both sexes fell below 75% at the doctoral level. The median salary of the men was slightly lower than that of male master's graduates. Women with doctorates, however, were earning \$2,300 more than those with master's degrees, yet the proportion who said that they were satisfied was lower.

Table 25. Satisfaction with salary, master's and doctoral degree recipients employed full—time, by field of study, 1978

Field of study		Master's	degree	Doctoral	degree
		Median salary	Percent satisfied		Percent satisfied
		\$		\$	
Agricultural and biological sciences		13,600 17,570	50 91	_ 17,840	73
Education		21,730 25,820	89 91	_ 24,580	84
Engineering, mathematics, and physical sciences		16,770 20,580	92 81	- 20,880	69
Fine and applied arts	F M	_ _		_ _	
Health professions	F M	18,520 —	88	_ 21,940	66
Humanities		15,380 16,640	74 75	18,210 20,200	71
Social sciences: Business, management, and commerce		19,790 22,890	75 82	<u>-</u>	
Psychology	F M	17,320 22,520	76 80	- -	
Social work	F M	17,100 19,770	76 80	_ _	
Total	F M	17,540 21,330	74 81	22,650 23,960	72 75
Total	F M	17,550 21,770	78 83	19,880 21,740	71 74



VIII. JOB SATISFACTION

Table 26. Job satisfaction, graduates employed full—time, by qualification level, 1978

An overwhelming majority (at least 84%) of all the graduates declared themselves satisfied with their jobs. Women with college diplomas were more satisfied than the men; women with university degrees, less. For men, job satisfaction was directly correlated with level of education, but this pattern was not evident among women.

Table 26. Job satisfaction, graduates employed full—time, by qualification level, 1978

Qualification	F	М
	(Percent	satisfied)
One— or two—year college diploma	88	84
Three— or four—year college diploma	87	86
Bachelor's or first professional degree	86	86
Master's degree	88	89
Doctoral degree	89	92

Chart 8. Job satisfaction of graduates employed full—time in positions not related to their education, by qualification level, 1978

The higher the female graduates' qualification level, the less satisfied they were in jobs that had nothing to do with their education.

Chart — 8

Job satisfaction of graduates employed full-time in positions not related to their education, by qualification level, 1978

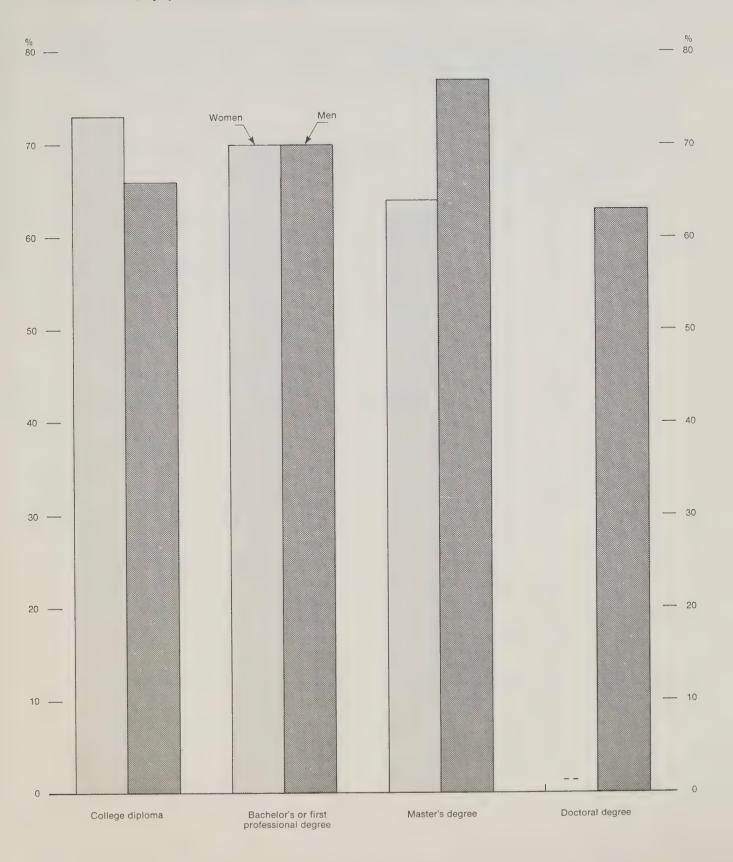


Table 27. Job satisfaction, college graduates employed full—time, by field of study and type of diploma, 1978

In almost every field, a higher percentage of female than male college graduates expressed job satisfaction.

Table 27. Job satisfaction, college graduates employed full—time, by field of study and type of diploma, 1978

Field of study	Type of	diplor	na		
	One— or two year F M (Perce ce	two-	Three— or four-year		
	F	M	F	M	
	(P	ercent	satisfi	ed)	
Business, management, and commerce	86	86	91	86	
Community services, social welfare, and household science	86	84	89	65	
Data processing and computer science	91	86		95	
Engineering and related technologies	85	85	88	88	
Fine and applied arts	81	74	74	76	
General arts and science, education, and law	90	85	88	88	
Mass communications	82	78	79	79	
Nursing	88	80	85		
Other medical and dental services	88	88	95	91	
Primary industries	84	82		85	
Secretarial arts and science	91				
Transportation		90			
Total	88	84	87	86	

Table 28. Job satisfaction, bachelor's and first professional degree recipients employed full—time, by field of study, 1978

In only a few fields of study did the proportion of bachelor's degree recipients who were satisfied with their jobs fall below 80% — female economics and political science graduates and male fine arts and sociology graduates.

Table 28. Job satisfaction, bachelor's and first professional degree recipients employed full—time, by field of study, 1978

Field of study	F	M
	(Percent	satisfied)
Agricultural and biological sciences:	V V V V V V V V V V V V V V V V V V V	1
Biology	83	87
Household science	83	87
10041	05	
Education:	0.7	0.7
Physical education Other education	91	87
	71	
Engineering and applied sciences		89
Fine and applied arts	81	78
Handah and Canadana	Control of the Contro	
Health professions: Medicine and dentistry	90	93
Nursing	86	
Pharmacy	87	80
Rehabilitation	92	
Total	87	89
Humanities:		
History	86	84
Languages Total	86 86	83
10001		
Mathematics and physical sciences	86	88
Social sciences:		
Business, management, and commerce	88	88
Economics	77	84
Geography	83 95	87
Law Political science	75	83
Psychology	80	85
Social work	89	95
Sociology	84	77
Total	84	86
General (no specialization)	89	80
Total	86	86

Table 29. Job satisfaction, master's and doctoral degree recipients employed full—time, by field of study, 1978

The only fields of study in which a larger proportion of female than male graduates claimed job satisfaction were engineering, health, and humanities at the master's level, and humanities at the doctoral.

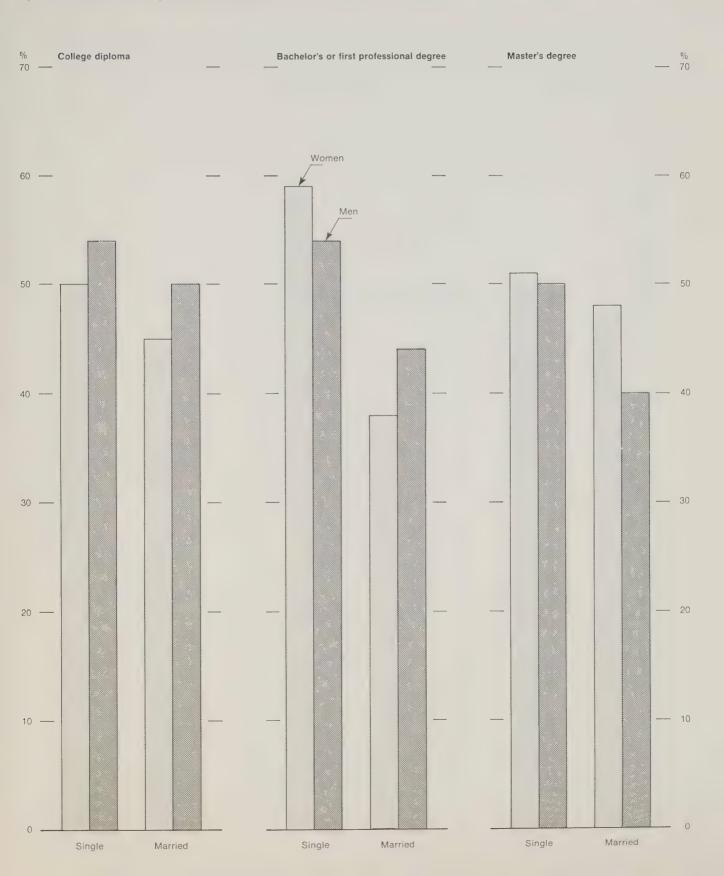
Table 29. Job satisfaction, master's and doctoral degree recipients employed full—time, by field of study, 1978

Field of study	Master's	degree	Doctoral	degree
	F	М	F	M
	(:	Percent	sati sfie	d)
Agricultural and biological sciences	86	87		94
Education	92	93		96
Engineering, mathematics, and physical sciences	98	94		91
Fine and applied arts		oka mu		
Health professions	90	82		100
Humanities	87	79	94	79
Social sciences: Business, management, and commerce Psychology Social work Total	87 82 83 86	89 95 87 88	 87	 94
Total	88	89	89	92

Chart 9. Graduates planning to leave an unsatisfactory permanent full-time job, by marital status and qualification level, 1978

Of the graduates in unsatisfactory jobs, single women were just as inclined to plan to leave as single men. Marriage was a deterrent for both sexes, but the effect on women was greater.

Chart — 9
Graduates planning to leave an unsatisfactory permanent full-time job, by marital status and qualification level, 1978





IX. RETROSPECTIVE JUDGMENT

Chart 10. Satisfaction with educational program, by employment status and qualification level, 1978

Female graduates tended to be less satisfied than males with their educational program. However, for both sexes, a much larger percentage of those working full—time than those looking for a job expressed satisfaction.

Chart — 10
Satisfaction with educational program, by employment status and qualification level, 1978

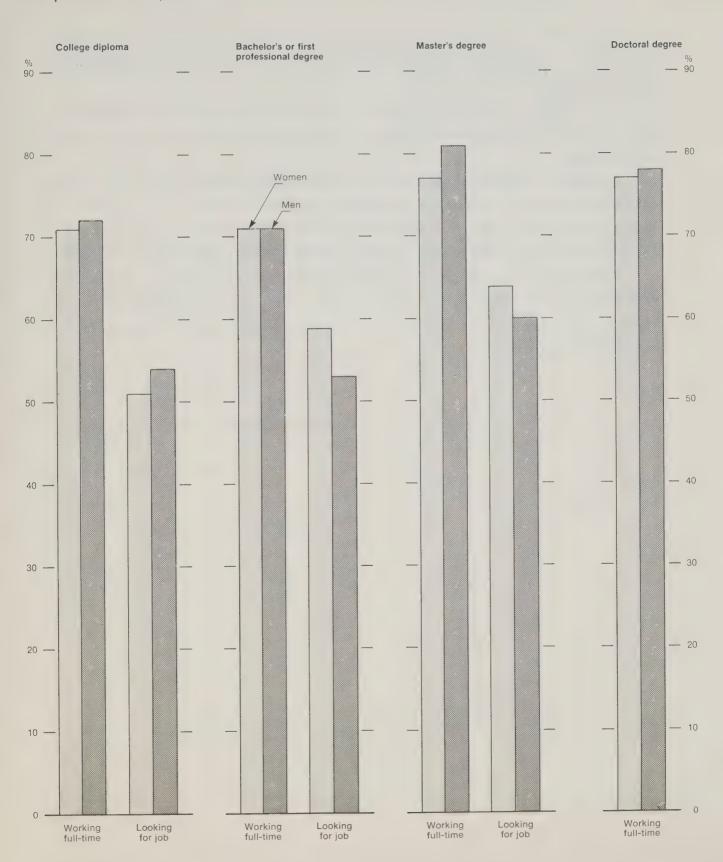


Table 30. Satisfaction with college program, by field of study and type of diploma, 1978

About 70% of the college graduates were satisfied with their educational program, but differences between women and men in various fields of study were pronounced.

Of the women with one— or two—year diplomas, only those from fine and applied arts and medical and dental services declared themselves more satisfied than the men.

Overall satisfaction with three— or four—year programs was slightly higher, although in several fields the proportion dropped below 60%. But unlike the one— and two—year level, the proportion of satisfied women was greater than that of men in half the fields in which numbers were large enough to compare.

The largest percentage of women to express satisfaction had three— or four—year diplomas in business. Men with any type of business diploma and women who had taken the one— or two—year business courses were much less pleased with their training.

Table 30. Satisfaction with college program, by field of study and type of diploma, 1978

Field of study	Type of	diploma	1	
	One— or	two-	Three- year	or four-
	F	М	F	M
		(Percen	t satisfi	ied)
		endocario de la companya del companya de la companya del companya de la companya		
Business, management, and commerce	64	65	81	70
Community services, social welfare, and household science	68	71	57	50
Data processing and computer science	71	82		87
Engineering and related technologies	64	70	64	72
Fine and applied arts	76	71	78	73
General arts and science, education, and law	72	72	61	56
Mass communications	66	71	49	71
Nursing	69	82	75	
Other medical and dental services	78	77	76	79
Primary industries	61	73		54
Secretarial arts and science	68			
Transportation		65		42
Total	69	71	73	71

Table 31. Satisfaction with bachelor's or first professional degree program, by field of study, 1978

Women and men with bachelor's degrees in practical fields such as medicine, engineering, and law had high levels of satisfaction, while rates were relatively low in biology and some social sciences such as economics, psychology, and sociology.

Table 31. Satisfaction with bachelor's or first professional degree program, by field of study, 1978

Field of study	F	M
	(Percent	satisfied)
Agricultural and biological sciences:		
Biology Household science Total	60 73 66	59 — 65
Education: Physical educationOther education	66	67 68
Engineering and applied sciences	82	83
Fine and applied arts	74	84
Health professions: Medicine and dentistry	92 79 80 86 82	89 - 72 - 84
Humanities	70	68
Mathematics and physical sciences	72	66
Social sciences: Business, management, and commerce. Economics. Geography. Law. Political science. Psychology. Social work. Sociology. Total	75 67 73 79 73 62 75 63 66	80 62 55 88 68 62 79 47
General (no specialization)	66	67
Total	70	70

Table 32. Satisfaction with master's or doctoral degree program, by field of study, 1978

Despite generally high levels of satisfaction with their educational program (76% overall), women with master's or doctoral degrees were somewhat less satisfied than men.

At the master's level, the proportion of women who gave their program a positive rating was lower than that of men in all but two fields: agricultural and biological sciences and health. The greatest differences of opinion were in engineering and mathematics and social work, where the proportions of satisfied males topped that of females by at least 9 percentage points.

A larger percentage of women with doctorates in the social sciences (78%) than in the humanities (66%) were satisfied. However, these rates were lower than the men's.

Table 32. Satisfaction with master's or doctoral degree program, by field of study, 1978

Field of study	Master's	degree	Doctoral	degree
	F	М	F	M
	(Percent	satisfie	d)
			days a managaran	
Agricultural and biological sciences	71	68		75
Education	80	85		90
Engineering, mathematics, and physical sciences	68	79		69
Fine and applied arts	70	ega Gai		
Health professions	83	77		90
Humanities	76	78	66	79
Social sciences: Business, management, and commerce Psychology	83 73 75 77	89 79 84 83	 78	 84
Total	76	81	76	77

Table 33. Retrospective preference of graduates who regret their choice of program, by qualification level, 1978

Two years after earning their credentials, about a quarter of the graduates wished they had taken a different program of study. A relatively high percentage with college diplomas favoured university training, but only a small proportion of degree—holders would have gone to college. Men were twice as likely as women to reject the notion of postsecondary education altogether.

Table 33. Retrospective preference of graduates who regret their choice of program, by qualification level, 1978

Retrospective	Qualif	icatio	n							
preference	One— o two—ye colleg diplom	ar e	Three- four-ye collegediplom	e a r e	Bachel or fir profes degree	st sional	M aster degree		Doctor degree	al
	F	М	F	M	F	М	F	М	F	M
		(Percentage distribution)								
					Opposite the state of the state	Siller of Control of C				
Different univer- sity program	45	40	52	47	76	75	77	84		82
Different college program	36	35	32	32	14	11		4		
No postsecondary program	4	9	3	7		and the control of th	-			
Other	7	9	6	8	5	5				ana ***
Unknown or no response	8	7	7	6	5	5		6		~-
Total: percent	100	100	100	100	100	100	100	100	100	100
number	3,710	1,990	550	700	7,580	8,050	450	800		150
(Graduates who regret choice as percent of all graduates)	28	26	25	26	27	27	20	16		2

Note: Boxes indicate most common retrospective preference.



X. CONTINUING EDUCATION

Table 34. Graduates enrolled in postsecondary institutions in October 1977, by enrolment status and qualification level

A larger proportion of the male than female graduates was enrolled in a postsecondary institution in October 1977. Bachelor's degree—holders were most inclined to continue their education — nearly a third of the men and a quarter of the women. Percentages were almost as high among master's graduates. The proportion of college graduates enrolled was around 15%. Men were more apt to be enrolled full—time, but except for college graduates, a larger percentage of women was enrolled part—time.

Table 34. Graduates enrolled in postsecondary institutions in October 1977, by enrolment status and qualification level

Enrolment status	Qu alifi	cation						
in October 1977	College diploma		Bachelo first profess degree		Master' degr e e	s	Doctora degree	1
	F	М	F	М	F	М	F	М
		1	(Perce	ntage d	istribu	tion)	1	
Enrolled								
Full-time	6	7	16	23	15	20		
Part-time	7	9	10	9	10	8		
Total	13	16	26	32	25	28	6	8
Not enrolled	87	84	74	68	75	72	94	92
Total: percent	100	100	100	100	100	100	100	100
number	15,710	10,440	27,950	30,140	2,280	4,930	170	790

Table 35. Plans for postsecondary enrolment within the next two years, by marital status and qualification level, 1978

At all qualification levels, women were less likely than men to plan to enrol in a postsecondary institution within two years. A smaller proportion of married than single graduates had such plans, but termination of marriage seemed to encourage the notion of further study among women.

Table 35. Plans for postsecondary enrolment within the next two years, by marital status and qualification level, 1978

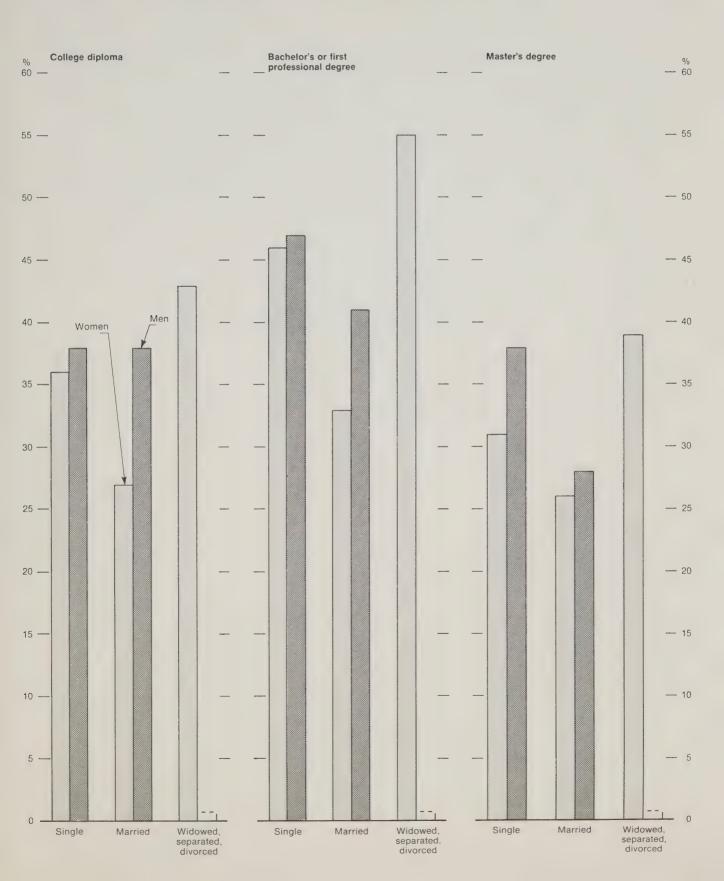
Marital status		Qualification							
		College diploma	Bachelor's or first professiona degree	Master's degree 1	Doctoral degree				
		(Percent planning to enrol)							
Single	F	42	54	41	19				
	М	43	54	48	16				
Married	F	32	43	37	14				
	M	42	49	37	11				
Widowed, separated,									
divorced	F	51	63	54					
	М	51	43	44					
Total*	F	38	50	40	18				
	М	43	51	41	11				

^{*}Includes graduates who did not indicate their marital status.

Chart 11. Graduates planning postsecondary enrolment to improve their job prospects, by marital status and qualification level, 1978

A smaller percentage of married than single women were planning postsecondary enrolment to improve their job prospects. Termination of marriage was apt to enhance career motivation.

Chart — 11
Graduates planning postsecondary enrolment to improve their job prospects, by marital status and qualification level, 1978





XI. SELECTED OCCUPATIONS AND FIELDS OF STUDY

Table 36. Top five occupation groups of graduates employed full—time, by qualification level, 1978

Women tended to be employed in a narrow range of occupations that have traditionally been considered feminine. Together, the health and clerical groups accounted for more than half the female college graduates, but among degree—holders, teaching jobs took precedence. The clerical and health categories were also prominent at the bachelor's degree level. Overall, male graduates were not so concentrated in any particular area. For them, the predominance of natural science occupations among college graduates gave way to teaching, management, and mathematics—physical science at the university level.

Table 36. Top five occupation groups of graduates employed full-time; by qualification level, 1978

	Male	
(25%) (7%) (5%) (4%)	1. Natural science	(10%) (9%) (8%) (8%)
	Male	
(12%) (7%) (6%) (5%)	1. Natural science	(15%) (12%) (11%) (6%)
	Male	
(10%)	1. Teaching	(19%)
(8%)	4. Social science 5. Sales Other	(6%)
	Male	
(29%)	1. Managerial, administrative	(23%)
(4%)	4. Social science	(3%)
	Male	
(47%) (20%)	 Teaching Mathematics, physical science, engineering, architecture 	(22%)
(33%)	3. Managerial, administrative	(12%) (8%) (5%)
	(10%) (9%) (9%) (8%) (15%)	(43%) 1. Natural science. (25%) 2. Managerial, administrative. (7%) 3. Sales. (5%) 4. Product fabricating. (4%) 5. Construction trades. (16%) Other. Male (54%) 1. Natural science. (12%) 2. Managerial, administrative. (7%) 3. Clerical. (6%) 4. Sales. (5%) 5. Artistic, literary. (16%) 0ther. Male (49%) 1. Teaching. (10%) 2. Managerial, administrative. (9%) 4. Social science. (8%) 5. Sales. (15%) Other. Male (33%) 1. Managerial, administrative. (4. Social science. 4. Social science. (5%) 2. Teaching. (17%) 3. Mathematics, physical science, engineering, architecture. (4. Social science. 5. Sales. (11%) Other. Male (47%) 1. Teaching. A. Social science, engineering, architecture. 3. Managerial, administrative. 4. Social science. 5. Life s

^{*}Includes graduates who had accepted a full—time job to start in the future.

Chart 12. Nursing graduates' employment outcome, by qualification level, 1978

Nursing graduates with one— or two—year diplomas had the lowest full—time employment rate and median salary, yet they were more satisfied than graduates who had earned three— or four—year diplomas or bachelor's degrees.

Chart — 12

Nursing graduates' employment outcome, by qualification level, 1978

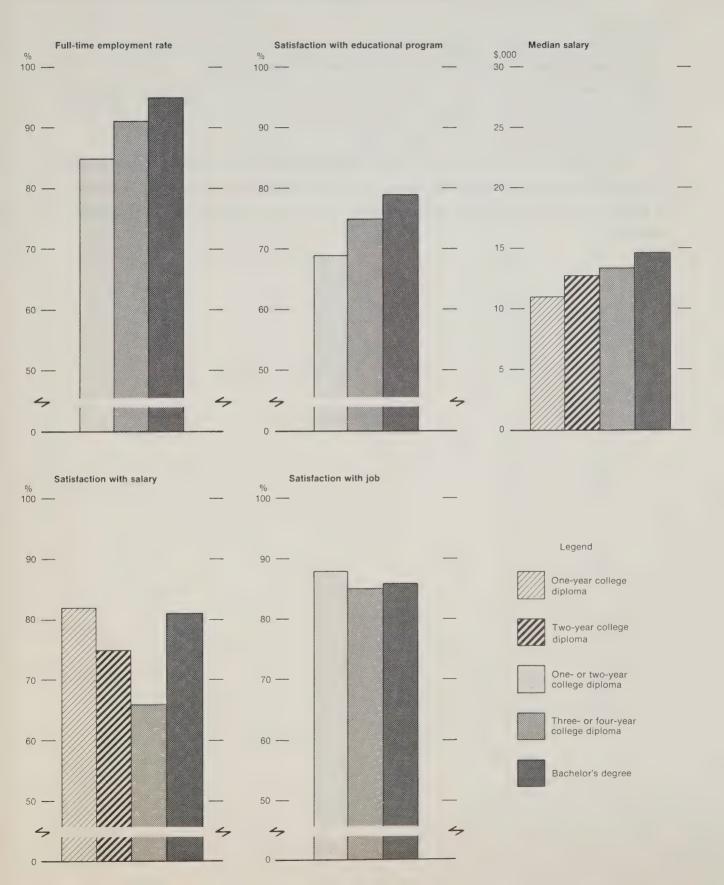


Table 37. University graduates employed full-time in elementary-secondary teaching occupations, by degree level and field of study, 1978

Of the bachelor's degree recipients employed full—time, 43% of the women were elementary—secondary teachers, in contrast to just 21% of the men. For nearly every field of study, the proportion of women in teaching occupations exceeded that of men. Teaching destinations were particularly common among humanities and social science graduates.

At the master's level, the proportions of teachers of both sexes dropped, but much more among women than men. In fact, except for education majors, a higher percentage of male than female graduates of different fields entered teaching.

Table 37. University graduates employed full—time in elementary—secondary teaching occupations, by degree level and field of study, 1978

Degree and field of study	F	M
	(Pe	rcent*)
Bachelor's degree		despress
Agricultural and biological sciences:		
Biology		15
Household science	1	
Total	. 22	10
Education:		
Physical education	1	55
Other education	. 77	72
Fine and applied arts	26	
Humanities:		ers of months of the
English		34
French	1 / 10	62
History	1.0	29
Total		31
Mathematics and physical sciences	21	13
Social sciences:		
Business, management, and commerce		<u> </u>
Geography	1	45
Political science	100	14
Psychology	1	26
Sociology Total		13
		an
General (no specialization) or unknown	50	
Total	43	21
Master's degree		
Education	45	37
Engineering, mathematics, and physical sciences		6
Humanities:		
English		52
History		37
Other		
Total	. 17	30
Social sciences		5
Total	18	15

^{*}As percent of all graduates employed full—time. Includes those who had accepted a full—time job to start in the future.

Table 38. Median annual salary of bachelor's degree recipients employed full—time in elementary and secondary teaching occupations, by work experience, 1978

Female bachelor's degree recipients who were elementary or secondary teachers had lower median salaries than similarly qualified men with equal (and in some cases, less) experience.

Table 38. Median annual salary of bachelor's degree recipients employed full—time* in elementary and secondary teaching occupations, by work experience, 1978

Work experience**	Median ann	Median annual salary						
	Kindergart elementary		Secondary	Secondary				
	F	М	F	М				
	\$							
Never worked	12,880	_	_	-				
Less than 1 year	13,700	14,380	14,000	15,190				
1—2 years	13,950	14,960	14,810	15,180				
3—4 years	14,580	15,080	15,190	15,790				
5—6 years	15,490	16,120	15,710	16,520				
7 years and more	20,630	20,860	20,750	20,780				

^{*}Includes graduates who had accepted a full—time job to start in the future.

**Before and after graduation; not necessarily teaching experience.

Table 39. Bachelor's degree recipients employed full—time in clerical occupations, by field of study, 1978

Overall, of those graduates with bachelor's degrees who were working full—time, 10% of the women but just 5% of the men were clerks.

From all fields of study, the proportion of females in clerical occupations was greater than that of men. Around 20% of the women with degrees in history or business had clerical jobs, as opposed to about 12% of the men. The proportion of female graduates in such occupations was also high for fine and applied arts, French, psychology, agricultural and biological sciences, and sociology.

Table 39. Bachelor's degree recipients employed full—time in clerical occupations, by field of study, 1978

Field of study	F	M	
·	(Perc	ent*)	
		A	
Agricultural and biological sciences	13		
Education	5	mp. 1991	
Fine and applied arts	15		
Health professions		-	
Humanities: English	9 14 20 14	 13 11	
Social sciences: Business, management, and commerce Psychology Sociology Total	23 13 11 13	12 7	
Tota1	10	5	

^{*}As percent of all graduates employed full—time. Includes those who had accepted a full—time job to start in the future.

Chart 13. Bachelor's degree recipients employed full—time in clerical occupations, by job satisfaction, intention to stay in job, and marital status, 1978

Male bachelor's degree recipients in clerical occupations had a higher rate of satisfaction than their female counterparts. Graduates of both sexes who intended to stay in the job outnumbered those who were satisfied, but the differences between women and men were sharp, particularly when marital status was considered. Married women had a lower rate of satisfaction than single women; the opposite was true for men.

Chart — 13
Bachelor's degree recipients employed full-time in clerical occupations, by job satisfaction, intention to stay in job, and marital status, 1978

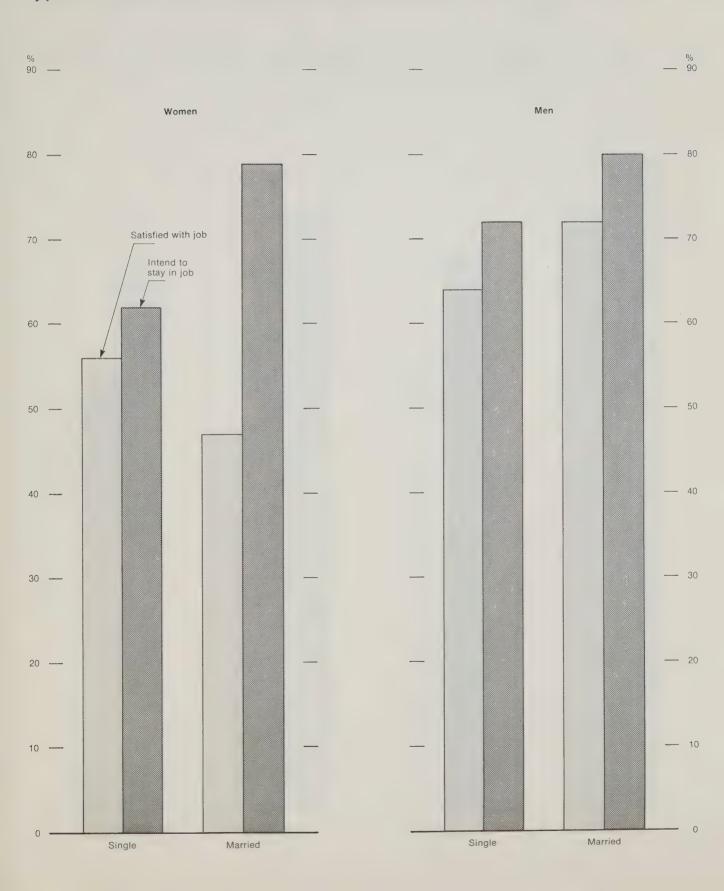


Chart 14. Median annual salary of graduates employed full—time in clerical occupations, by qualification level, 1978

At all levels of qualification, male graduates employed in clerical positions earned more than equally qualified women in similar jobs.

Chart — 14
Median annual salary of graduates employed full-time in clerical occupations, by qualification level, 1978

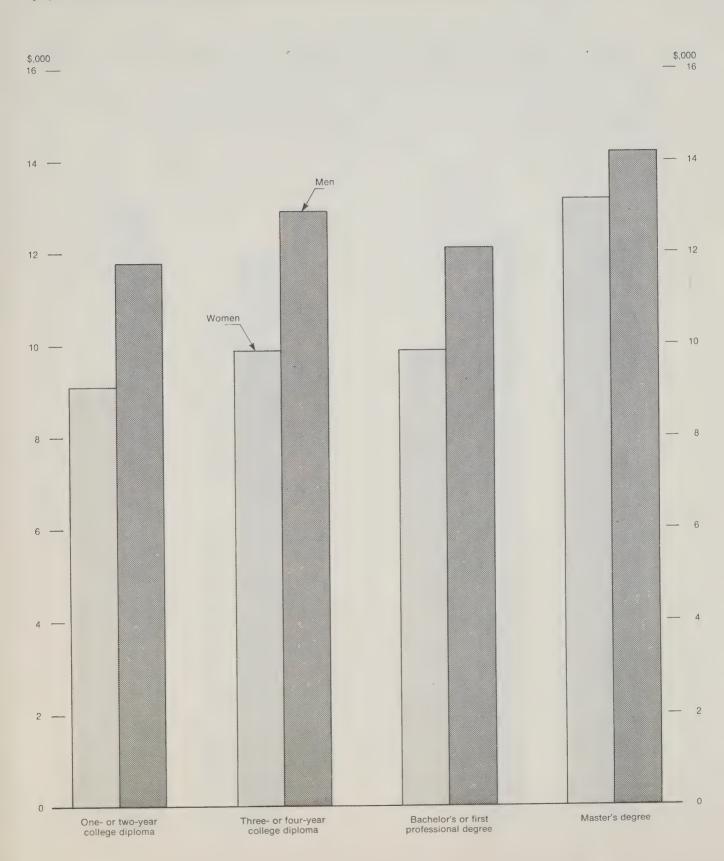


Chart 15. Bachelor's degree recipients employed full—time in sales occupations, by job satisfaction, intention to stay in job, and marital status, 1978

Male and unmarried female bachelor's degree recipients in sales had a high rate of job satisfaction, yet the proportion who intended to stay in those positions was lower. By contrast, the percentage of married women who planned to remain in sales jobs exceeded the percentage who were satisfied.

Chart — 15
Bachelor's degree recipients employed full-time in sales occupations, by job satisfaction, intention to stay in job, and marital status, 1978

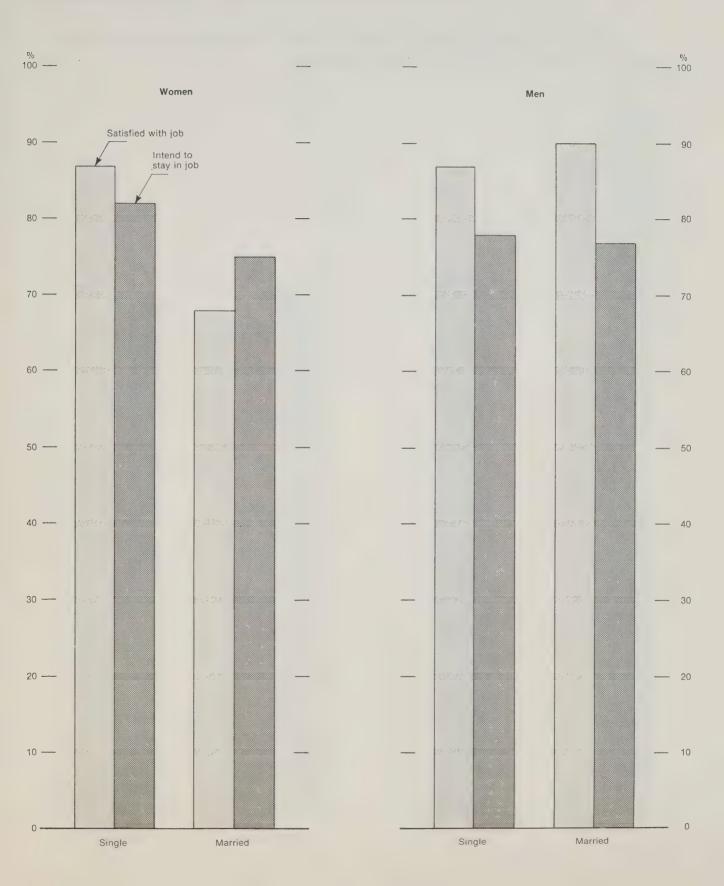


Chart 16. Median annual salary of graduates employed full—time in sales occupations, by qualification level, 1978

At all qualification levels, female graduates in sales occupations were earning at least \$4,000 a year less than males.

Chart — 16
Median annual salary of graduates employed full-time in sales occupations, by qualification level, 1978

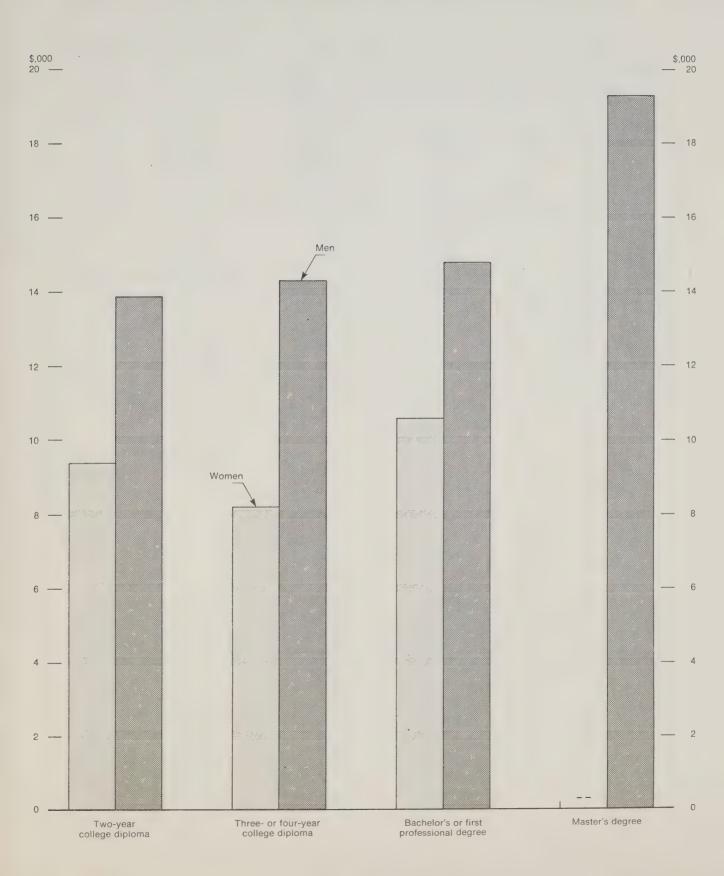


Table 40. Occupation groups of business graduates employed full—time, by qualification level, 1978

Male business graduates were more likely than females to be employed in managerial or sales occupations. A large percentage of the women with diplomas or degrees in business found themselves in clerical jobs.

Table 40. Occupation groups of business graduates employed full—time,* by qualification level, 1978

Qualification		Occupation group						
		Mana— gerial, admini— strative	Clerical	Sales	Other	Total		
		(Percentage distribution)						
One— or two—year college diploma	F M	23 27	43	17 27	17 29	100		
Three— or four—year college diploma	F M	29	48	22	21	100		
Bachelor's or first professional degree	F M	44 60	23	 10	24	100		
Master's degree	F M	49		 7	38	100		

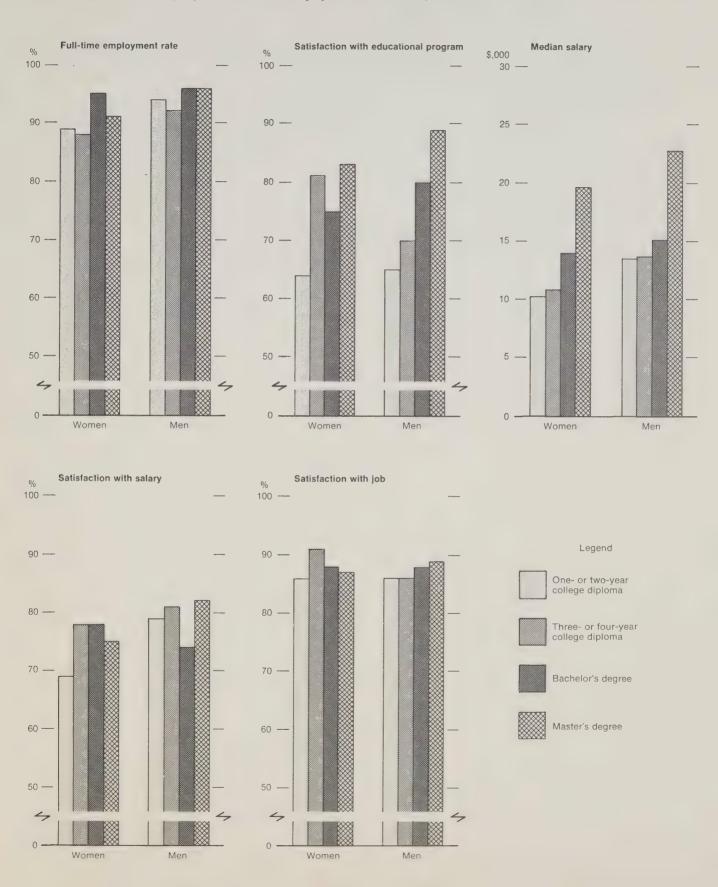
^{*}Includes graduates who had accepted a full-time job to start in the future.

Chart 17. Business graduates' employment outcome, by qualification level, 1978

Female business graduates had a lower full—time employment rate and a lower median salary than similarly qualified males. Except for those with three— or four—year college diplomas, the women were less satisfied with their educational programs, and except for bachelor's degree—holders, less satisfied with their salaries. Yet aside from those with master's degrees, women were more satisfied with their jobs.

Chart — 17

Business graduates' employment outcome, by qualification level, 1978





XII. TOMORROW'S GRADUATES

Table 41. Bachelor's and first professional degree enrolment, by field of study, 1978-79

The percentage distribution of female bachelor's and first professional degree enrolment in 1978—79 indicated some shift out of fields such as education and humanities, and into a few male—dominated areas such as engineering, medicine and dentistry, and most notably, business.

Table 41. Bachelor's and first professional degree enrolment, by field of study, 1978-79

Field of study	F	М
		entage ribution)
Agricultural and biological sciences:		
Biology	3	3
Household science Total	3 8	6
Education:		
Physical education Other education	4 14	3 5
Engineering and applied sciences	2	18
Fine and applied arts	5	2
Health professions:		The same of the sa
Medicine and dentistry	2	3
Nursing	4	400 mm
Pharmacy	1	*** ***
Rehabilitation Total	1 8	4
Humanities:		
History	2	2
Languages	5	2
Total	9	6
Mathematics and physical sciences	3	7
Social sciences:	_	10
Business, management, and commerce Economics	1	13
Geography	1	2
Law	2	3
Political science	1	2
Psychology	5	2
Social work	1	
Sociology	2	1
Total	22	27
eneral (no specialization)	24	21
nknown	1	1
Total: percent	100	100
number	108,800	128,700

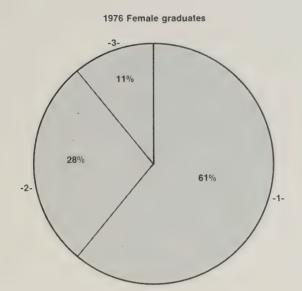
Source: Postsecondary Section, Education, Science and Culture Division, Statistics Canada

Chart 18. Traditionals, moderates, and innovators among 1976 and 1978 female graduates and 1978—79 female enrolment, bachelor's and first professional degree level

Female bachelor's degree recipients can be placed in one of three categories: <u>traditionals</u>, who graduated from fields in which 65% or more of the degrees were granted to women; <u>moderates</u>, from fields in which the proportion of women ranged from 31% to 64%, and <u>innovators</u>, from fields where women represented 30% or fewer.

Between 1976 and 1978, the percentage of "traditional" graduates dropped from 61% to 54%, and if those enrolled in 1978—79 do not change their majors, the percentage will continue to decline.

Chart — 18 Traditionals, moderates and innovators among 1976 and 1978 female graduates and 1978-79 female enrolment, bachelor's and first professional degree level



1978 Female graduates 13% 54% 33% -1-

Legend

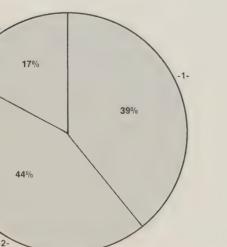
-1- Traditionals

-2- Moderates

-3- Innovators

17% 39% 44%

1978-79 Female enrolment





XIII. PLUS ÇA CHANGE...



Introduction

The presence of a woman in what is normally considered a male occupational preserve is still unusual enough to provoke comment. Every year the <u>Canadian Periodical Index</u> lists about two pages of articles under headings like "Women architects," "Women bankers," "Women diplomats," "Women dramatists," "Women executives," "Women lawyers," "Women miners," and so on. The editors of the <u>Index</u> have not compiled a comparable section on men — How does "Men bankers" or "Men lawyers" sound? But perhaps more telling is the title of a 1978 feature in <u>Chatelaine</u> that sums up widespread notions about the incompatibility of the feminine image and certain occupations — "That's no lady, that's my boss."

Although the female labour force has been increasing at a faster rate than the female population of working age, they continue to be concentrated in a small number of occupations. By 1978, women constituted nearly 40% of the labour force, but they were "noticeably absent from those fields in which... rewards are the greatest" — medicine, law, engineering. They are more apt to be in clerical, semi—professional, and service jobs. These occupations have relatively high status (that is, white collar), require fairly high levels of education, demand little career continuity or commitment, and offer relatively low pay and few chances for advancement.

Education

"If it were possible to isolate the single most significant factor in the problem of why women fail to achieve equal status with men in the labour force, that factor would be education." Sex-typing of interests and

B. Gladstone, "That's no lady, that's my boss," Chatelaine, 51 (July, 1978), 42-43, 84-86.

²Sandra Schwarz Tangri, Effects of Background, Personality, College and Postcollege Experiences on Women's Postgraduate Employment (Washington, D.C., 1974), 1.

³Gertrude Berger, "The socialization of American females as a dysfunctional process," Journal of Research and Development in Education, 10 (Summer, 1977), 6.

occupational preferences begins in the elementary grades and is perpetuated through high school, where it is reinforced by career counselling. Women are steered away from male—dominated business, technical, trade, and industrial occupations, and directed toward "appropriate" fields.

Educational institutions reflect societal attitudes — attitudes that women have internalized. Relatively few girls enrol in high school science and math courses, so by the time they reach the postsecondary level, they may have already made the decisions that will determine their occupational out—comes. "Such inadequate preparation may permanently curtail career options in science and technology, which require more sequential achievement than most other fields." 1

Women are not storming colleges of engineering or agriculture or departments of physics, geology, meteorology, etc. for admission." "...They continue to select traditional disciplines, which lead to low-paying, low status occupations, or worse yet — as in the case of the proverbial literature major — no job at all." "...The single most predictable item about female selection of occupation is that it will be in the social field" teacher, nurse, welfare worker, etc. Such jobs are a "half—way house, a sheltered environment" in which women need not compete in the male syndrome of profit, independence, power, and leadership. "...It is a safe course of action, one consistent with the behaviour of others of the same sex."

Furthermore, the choice may be practical, for most women do get married and assume family responsibilities. The usual pattern of female labour force

Gail Thomas McLure and Ellen Peel, "College—bound girls and science careers: perceptions of barriers and facilitating factors," <u>Journal of Vocational Behaviour</u>, 12 (April, 1978), 173.

²Lloyd G. Humphreys, "Race and sex differences and their implications for educational and occupational equality," <u>Educational Theory</u>, 26 (Spring, 1976), 141-142.

³Dorothy J. Zuersher, "Wanted: a more realistic educational preparation for women," Educational Leadership, 33 (November, 1975), 119.

Gertrude Berger, "Females and social occupations: forced or free choice?" The School Counselor, 25 (March, 1978), 250.

⁵Ibid., 251.

⁶Ibid., 251.

participation has consisted of two phases governed by the exigencies of family life: before marriage and childbearing, and after the end of childbearing. 1 While this mode of participation allows women to work, it deters professional career growth. Any combination of work and home that requires opting out of paid employment for three or four years clashes with the demands of many male—dominated occupations. Childbearing usually occurs when women are young — about the same time that they would otherwise establish themselves in a career. These years are important for selection and appraisal within occupational structures. Moreover, the rapidly changing state of knowledge, particularly in science, makes it difficult for even those who remain at work full—time to stay abreast of developments. Finally, preservation of traditional domestic responsibilities puts an almost intolerable pressure on a woman who tries to combine them with professional employment. In the conflict between home and career, the latter usually takes second place.

Social occupations, then, seem an ideal compromise. The work is more "interruptible" than scientific fields, so a woman can return after several years without retraining. Opportunities for part—time work are plentiful, and hours can be tailored to fit the daily routine of children.

Hence, "the barriers to achievement striving and occupational fulfillment for women exist within and outside themselves." In the early 1970s, R.K. Kelsall, Anne Poole, and Annette Kuhn analysed the employment status of female university graduates in Britain. The three researchers concluded that women would be permanently relegated to "second—rate careers," and would find it "almost impossible to compete successfully with men in 'high-ranking' occupations" without:

- 1. A substantial change in the nature of high status careers, or
- 2. Greater willingness by employers to adapt working environments to facilitate female participation, or
- 3. A major reshuffling of domestic responsibilities between husbands and wives. 3

Recently, the pattern of female participation has been approaching that of men — continuous, uninterrupted labour force attachment.

²Tangri, Effects, 4.

R.K. Kelsall, Anne Poole and Annette Kuhn, Graduates: The Sociology of an Elite (London, 1972), 150-151.

Related Findings

To put the results of the survey of 1976 graduates in perspective, comparisons with other empirical research will be made. Principally, the findings are related to contemporary and earlier work conducted in Canada, the United States, and Great Britain. The main studies selected for examination had an objective similar to that of the 1978 Canadian survey: a comprehensive assessment of the labour force status of postsecondary graduates. Other research that focused on only one or two of the issues covered in the national surveys is occasionally cited to indicate a trend or support a point. A brief description of the major works that are quoted follows:

1. Patricia Cockburn. Women University Graduates in Continuing Education and Employment: An exploratory study initiated by the Canadian Federation of University Women, 1966

Employment was released. It was based on the replies to a survey of 4,846 Canadian Federation of University Women (CFUW) members and 1,724 degree—holding nonmembers. Most of the findings centred on the labour force status and future plans of the respondents, and thus provide some basis for an historical comparison with the 1976 graduates. But there are important differences. The 1966 study dealt with women alone; men were not questioned, nor were female—male contrasts mentioned in the analysis. Only university graduates were included; women with nonuniversity diplomas and certificates were left out. The sample was much smaller (6,570 versus 13,659). Furthermore, the 1966 survey represented the estimated 163,000 women in the Canadian population who were then degree—holders; the 1976 data refer only to women who graduated that year.

2. R.K. Kelsall, Anne Poole, and Annette Kuhn. <u>Graduates: The Sociology of an Elite</u>. London: Methuen and Co. Ltd., 1972

The same year (1966) that Cockburn conducted her survey of Canadian female university graduates, a questionnaire was sent to every woman and

every other man who had successfully completed an internal first degree in 1960 in faculties of British universities other than medicine, dentistry, and veterinary science (these disciplines were covered in the 1978 Canadian survey) to determine their labour force status. Respondents numbered 3,582 women and 4,702 men (which was "grossed up" to 9,404). Analysis of the findings appeared in <u>Graduates</u>: The Sociology of an Elite, one chapter of which, "Captives by Choice?", dealt exclusively with the female graduates.

Like the 1978 Canadian survey, Kelsall et al were looking at one year's crop of graduates several years after they had received their qualifications. However, the interval was longer: six years as opposed to two.

3. Denise del Vento Bielby. "Career sex—atypicality and career involvement of college—educated women: baseline evidence from the 1960s," <u>Sociology</u> of Education, 51 (January, 1978), 7--28.

The U.S. Bureau of the Census showed marginal increases of women relative to men in the professions and semi-professions between 1963 and 1973. A similar increase was evident in the proportion of women preparing for female—atypical fields, which before 1972 had been unchanged over several decades. However, a more precise indicator of professional intent is use of the field in which one has been trained. The critical question, then, according to Bielby, is whether women follow through on their education investments.

To answer it, she examined data that had been gathered by the National Opinion Research Center. The plans of a representative sample of the June 1961 graduating class (bachelor's degree level) had been assessed during their senior year. Periodic follow—up surveys were conducted, so that by 1968 the fifth round had been completed.

Again, the interval between graduation and the most recent survey was longer than that for Canada's 1976 graduates. Moreover, the initial questioning of the American group had occurred while they were still in university, so there was less chance that their professed motivations and intentions would be distorted by subsequent experience.

Nonetheless, Bielby's attempt to isolate some of the determinants of career involvement in 1968 proved helpful in interpreting the Canadian data.

4. Anne M. Young. Employment of Recent College Graduates, October 1972. Special Labor Force Report 169. U.S. Department of Labor, Bureau of Labor Statistics. Washington, D.C., 1974.

Unprecedented numbers of young university graduates were entering the American labour force in the late 1960s and early 1970s. At the same time, demand for professional workers was slackening in some segments of the economy that had customarily provided employment for new degree recipients, notably research and development and education. The growing imbalance between the supply of and demand for graduates led the U.S. government to undertake a special survey.

Questionnaire supplements were appended to the October and December 1972 Current Population Survey of the Labor Force, conducted and tabulated for the Bureau of Labor Statistics by the Bureau of the Census. The aim was to ascertain the labour force status, as of October 1972, of the 812,000 students who had completed bachelor's, first professional, or advanced degrees in the academic year ended June 1972. This meant that the period between graduation and survey was much shorter than was the case for the 1976 Canadian graduates. However, both were national surveys of only one year's graduates, and investigated some of the same phenomena: for example, relationship of job to education and earnings compared with expectations.

5. U.S. Department of Health, Education, and Welfare. Education Division. National Center for Education Statistics. 1978 Survey of 1976-77 College Graduates. U.S. Government Printing Office: Washington, D.C. 1978.

A 1978 survey by the U.S. National Center for Education Statistics was similar to that of Statistics Canada. The American report presented data on the employment status, as of February 1978,

of a national sample of bachelor's and master's degree recipients who had graduated in the academic year 1976—77. Thus, it was about a year since the respondents had earned their degrees, in contrast to the two—year interval of the Canadian survey. The aims of the two projects coincided and yielded results on many common issues — employment rates, underemployment, salary, occupation, continuing education, and so on.

6. Service général des communications, Ministère de l'Education, Québec.

Relance à l'université. 1979.

A major shortcoming of the survey of 1976 postsecondary graduates was that the province of Québec did not participate. However, early in 1978, Québec's Ministère de l'éducation surveyed a sample of 4,618 graduates from the approximately 17,700 who had received bachelor's degrees in the 1974—75 academic year. The period between graduation and survey was about thirty months. Because the purpose was essentially the same as that of Statistics Canada (to determine the graduates' labour force status), similar topics were covered — employment rates, continuing education, occupational outcome, salary. Unfortunately, the report, Relance à 1'université, contained only four tables cross—classified by sex. Trends in those tables, however, do not differ from findings for the other nine provinces.

Traditionals, Moderates, and Innovators

Female graduates may be ranked along a continuum according to the extent to which their field of study is typically "feminine":

- 1. <u>Traditional</u> fields are female—dominated (65% or more of the graduates are women; for example, nursing, teaching).
- 2. In <u>moderate</u> fields, women constitute 31% to 64% of the graduates (for example, biology, geography).
- 3. Innovative fields are those in which female graduates are a definite

minority (less than 30%; for example, engineering, medicine). 1

Only bachelor's degree recipients were classified as innovators, moderates, or traditionals. College education itself tends to be a "traditional" choice, because a large proportion of the programs are in "feminine" spheres (nursing, secretarial science), and women made up the majority of all 1976 graduates. On the other hand, it might be argued that obtaining a postgraduate degree, regardless of field, is "innovative" for women, as they represented only 30% of the graduates. However, at the bachelor's level, the total numbers of female and male graduates were almost equal, so the distribution of women among the various "feminine" and "masculine" fields is a more useful indicator.

Traditionals were the women who obtained their bachelor's degrees in household science, teaching, nursing, rehabilitation, languages, psychology, sociology, or social work - 61% of the total. Innovators were graduates of engineering and applied sciences, medicine and dentistry, mathematics and physical sciences, business, economics, and law - 11%. The remainder, the moderates, constituted 28%.

Motivation

A higher percentage of female than male graduates, except those with master's degrees, claimed that they had taken the postsecondary program

¹The traditional—moderate—innovator concept was adapted from classifications employed by Sandra Schwartz Tangri (Effects of Background, College and Post-College Experiences on Women's Post-Graduate Employment. Final Report. Washington, D.C.: U.S. Commission on Civil Rights, July, 1974) and Kathryn McDaniel Moore and Helen C. Veres ("Traditional and Innovative Career Plans of Two-Year College Women," Journal of College Student Personnel, 17, January, 1976, 34-38). Instead of relating the number of female graduates to the total number of graduates in each field, these researchers used Census occupation data as the criterion against which their subjects were measured. The Tangri classification has a broader definition of traditional fields (more than 50% female), while the Moore-Veres definition is narrower (more than 70%), but their innovative range is wider (less than 40% female). The percentages applied to the 1976 graduates are a compromise of the two systems. If Tangri's definition had been used, 69% of the female bachelor's degree recipients would have been traditionals. Conversely, the Moore-Veres definition would have resulted in 23% traditionals and 18% innovators.

for specific career objectives. The highest career motivation was among women with college diplomas — more than 90% — but this may be because a large proportion were in job—related fields, the occupational outcome of which is well—defined (nursing, for example). At the bachelor's degree level, only about three—quarters of the women professed specific career objectives, but this is slightly more than the percentage of men. The difference may be caused by the relatively high proportion of women who received degrees in education, another field with immediate job applicability.

Employment Status

Higher education increases the likelihood of joining the labour force. The 1978 participation rate for all women ranged from 26% of those with only elementary school, to 67% of those with university degrees. Data from the 1976 graduates survey suggest that not only are women with postsecondary credentials more apt to work, but that their labour force participation rate continues to rise.

Two years after graduation, 79% of the female bachelor's degree recipients had full—time jobs, as did 75% of the master's degree—holders. Another 7% of both groups were working part—time, while 6% of the former and 4% of the latter were looking for a job. Hence, their labour force participation rates were 92% and 86%, respectively. Of the women with doctorates, 81% were working full—time (numbers in other categories were too small to be statistically reliable).

At all degree levels, the proportion of men working full—time was greater: 85% of the bachelor's degree—holders, 83% of those with master's degrees, and 92% of the doctorate recipients. The percentages working part—time were lower: 3% to 4%.

Statistics Canada, Labour Force Survey Division, Processing and Data Dissemination Section, <u>Labour Force Annual Averages</u>, 1975—1978, Catalogue 71—529, Occasional (Ottawa, 1979), 23.

The trend seems to contradict the well-established positive correlation between education and labour force participation. Except at the doctoral level, percentages of both female and male graduates working full-time drop as qualifications rise. However, this is consistent with 1976 Census data for the 15-24 and 25-34 age groups. Moreover, in 1977 about 15% of the female graduates with bachelor's or master's degrees were enrolled full-time in postsecondary institutions, and the overwhelming reason for planning further training was to improve job prospects. Thus, the relationship between education and labour force participation holds.

Results of the Ouebec survey of 1974—75 bachelor's degree recipients are similar: women were more apt than men to be unemployed, working part—time, or not in the labour force at all. While 86.4% of the men were employed full—time, this was true of just 75.4% of the women. The proportion of unemployed women was double that of men (6.0% versus 2.7%), and the percentage of women working part—time (8.1%) was triple that of men (2.7%).

Both surveys echoed the earlier U.S. Department of Labor report, although in the United States the total employed (full— and part—time) amounted to only 79.2% of the women and 87.2% of the men, and the percentages unemployed were 9.8% and 7.8%, respectively. These lower employment and higher unemployment rates in the U.S. may be attributable to the shorter period between graduation and survey (a maximum of fifteen months; for some, as little as four).

Comparison of the 1976 graduates with Cockburn's 1966 findings for Canada suggests that women with degrees are more inclined than ever to take an active role in the labour force. Unlike Statistics Canada, Cockburn placed no restriction on the date when her respondents had earned their degrees, so many of them had had decades in which to join the labour force.

¹Statistics Canada, 1976 Census of Canada, <u>Labour Force Activity</u>: <u>Labour Force Activity</u> by Age, Sex and Educational Characteristics, Catalogue 94—806 (Ottawa: December 1978), 15—1 — 15—4.

More than 90% had worked since graduation — for an average of five to nine years, at two different jobs. Just over 80% of these jobs had been full—time; a little less than 10% had been about equally divided between full— and part—time, and slightly under 10% were part—time.

In the two years after earning their credentials, the majority of the 1976 graduates were new labour force entrants. Nonetheless, their rates of labour force participation at the time of the survey were nearly as high as the lifetime rates Cockburn's women had achieved by the mid—sixties.

The employment rate applied to the 1976 graduates does not conform to official labour force terminology. For convenience, the rate is the number of 1976 graduates who had obtained a job, as a percentage of all 1976 graduates in the labour force. Obviously, those neither working nor looking for work are excluded. To be considered full—time, a job had to be performed 30 hours or more a week. Graduates who had accepted a full—time job to start in the future are included with the full—time employed.

As far as securing work was concerned, the traditional—innovator typology had little relevance. Employment seemed to depend more on the nature of the training. Graduates of both sexes had high full—time employment rates if they were qualified in job—specific fields. Thus, rates were high for women who had graduated in traditional areas such as teaching and nursing, and also for those in innovative areas such as data processing, engineering, and business; rates were low where the education does not lead to a definite occupation (for example, sociology, political science). The pattern among men was similar, though in all but one or two fields their full—time employment rate was higher than that of women.

Job-Education Relationship

The 1976 graduates who were employed full—time were asked their opinion about the connection between their education and their jobs. The answer, of course, is subjective, especially when distinctions are made between "directly related" and "partly related." However, the concept "not related" is less open to interpretation, and therefore, perhaps more reliable.

At all qualification levels, women were less likely than men to say that their jobs were not related to their education. A good thing, too, because evidence suggests that women are more concerned that a link should exist. A 1975 American survey of prospective bachelor's degree recipients found that the relationship between major field of study and career choice was "very important" to 74% of the women, but to just 66% of the men. Women were also more apt than men to expect that their eventual career would be highly related to their major (70% versus 64%). This may have been because many of them were in teaching and nursing.

The heavy representation of women in education and the health professions was also cited in the U.S. Department of Labor study to explain why more women ended up in a related job. The majority of 1972 graduates had employment directly connected with their field: 71% of the women, 66% of the men. However, 20% of the men were in unrelated jobs compared with 17% of the women. Most graduates had taken such a job because it was the only employment available, although a much higher proportion of women than men (61% versus 43%) gave this reason. Men were more apt to say that they had accepted an unrelated job because it offered better opportunities for advancement, or simply because they wanted to see if they liked that kind of work.

When data on Canada's 1976 graduates are examined by field of study, the obvious conclusion is that career—oriented training led more directly to a related job. For example, only insignificant percentages of women and men who were working full—time and had bachelor's degrees in engineering, health, or law had jobs not related to their education. By contrast, around a third of the women, and even more of the men, who had graduated from biology, history, political science, or sociology were doing unrelated work.

Female college graduates were only about half as likely as bachelor's degree recipients to be in unrelated jobs, undoubtedly because most college

Robert M. Greenberg and Richard B. Tully, Educational Plans and Career Choices of Bachelor's Degree Recipients in Indiana, Indiana College-Level Manpower Study Report Number 3 (Indianapolis, Indiana, 1975), 30.

²<u>Ibid.</u>, 41.

training is expressly designed to prepare students for work. The plurality, and in some instances the majority, entered occupation groups that seemed the logical outcome of their field of study. This was also true of the men, but clustering was not as dense in any one category. For example, about half the women with one— or two—year diplomas in mass communications found jobs that fell into the artistic, literary, or performing arts category, compared with just a quarter of the men. However, a larger proportion of male than female graduates of engineering and data processing were working in the natural sciences-engineering occupation group.

As Bielby observed, enrolling in a male—oriented program does not necessarily eventuate in an innovator. After studying the occupational outcomes of American women in the 1960s, she concluded that there was a tendency for even innovators to move toward more sex—typical careers after graduation. The strongest evidence in the 1976 graduates data that this inclination continued is the jobs of women with bachelor's degrees in business. Business is a "masculine" field whose male graduates were more likely to work in management—administration than their female counterparts (60% versus 44%). Nearly a quarter of the women (23%), but just 12% of the men, were in the clerical category — an occupation group which is more than 75% female.

"Highly Oualified Manpower"

Occupational outcomes for the degree—holders have been divided into two types: "highly qualified manpower" (HQM) jobs and non—HQM jobs. An HQM job is one that usually requires a degree. At the bachelor's level, a larger percentage of the female than male graduates had HQM jobs, while differences among those with advanced degrees were negligible.

The seemingly better outcome for women again reflects their concentration in teaching. Occupation groups of university graduates who were working full—time in HQM jobs indicate considerable spillover of women from other

Statistics Canada, Labour Force Survey Group, The Labour Force, Catalogue 71-001, Monthly (Ottawa, March 1980), 40.

fields into teaching. At the bachelor's level, 26% of the women earned education degrees, but 63% of the HQM jobs held by women were in education. About half the female graduates of the humanities and some social sciences (geography, sociology) were teachers. (The tendency among male graduates was similar, but not so strong.) By contrast, more than a quarter (29%) of the women had social science degrees, but just 8% of them found HQM jobs in that field.

The other studies did not use the HQM concept, so only approximate comparisons are possible. A frequent classification is whether jobs are in the professional—technical category. Many of the 1978 occupations of 1976 graduates were probably their first jobs and thus close equivalents of the first jobs of the Canadian women Cockburn had surveyed. She found that about 79% of them had started in professional—technical employment, almost the same percentage as the 1976 female bachelor's degree recipients in HQM positions, but slightly less than the percentages of master's and doctoral degree—holders. The pattern in the 1972 U.S. Bureau of Labor survey is nearly identical: 77% of the women and 71% of the men had professional, technical, or managerial jobs. Once more, the higher proportion of women was attributed to the large numbers in elementary—secondary teaching and health occupations.

A total of 19% of Cockburn's respondents had first jobs that were not professional—technical, and of these, 68% were clerical. The U.S. Department of Labor study showed a lower percentage of clerks among female 1972 graduates with nonprofessional jobs — 60% — but clerical work was the fate of only 19% of the men. Another 16% of the women were in sales, compared with 26% of the men. The 1976 Canadian graduates were more widely dispersed among non—HQM occupations. Of the bachelor's degree recipients who accepted such jobs, 44% of the women and 18% of the men were in the clerical category. Sales accounted for 11% and 18%, respectively. At the master's level, 25% of the women and 17% of men were clerks, and while sales was the largest identifiable group for the non—HQM men (20%); the percentage of women was too small to be shown.

This overlapping into the education sector may be restricted in the future. The decelerating birth rate has curtailed, and will continue to reduce, the number of education—related jobs. If it is assumed that teaching is a "highly qualified manpower" occupation "related" to a humanities or social science degree, the proportions of graduates in non—HQM occupations and in jobs not related to their training may rise as the absorptive capacity of the education sector diminishes.

Underemployment

Underemployment has at least two dimensions: formal qualifications demanded by the employer and the incumbent's assessment of the work. If only the first is considered, the plurality of 1976 graduates obtained positions that matched their credentials. At every level except the bachelor's, a larger percentage of men were underemployed. High underemployment at the master's level (43% of the women, 59% of the men) seems to indicate that employers were unsure of just what a master's degree means for job performance (that is, how superior is it to a bachelor's degree, how inferior to a doctorate?), and so did not demand it as frequently as other credentials.

The pattern of the second dimension of underemployment, the graduates' belief that they were underemployed, is the same, although percentages are much higher (rising above 60% for men with master's degrees).

In the U.S. Department of Health, Education and Welfare study of 1976—77 graduates, the underemployed were defined as those not working in a professional, technical, managerial, or administrative job, and who reported that in their opinion, the work did not require a degree. Overall, 22% of the graduates fit this definition: 19% of the women, 24% of the men.

Salary

The effects of sex—stereotyping of occupations are manifest most concretely in salaries. "Earnings are perhaps the single most important indicator of labour market progress, since they reflect occupational distribution..."

"Recent studies have arrived at a common point of view that suggests that the major portion of sex differences in earnings is rooted in a sex—segregated labour market that concentrates female employment in low—paying jobs."

¹ Morley Gunderson, "Work patterns," in Gail C.A. Cook, ed. Opportunity for Choice: A Goal for Women in Canada (Ottawa, 1976), 118.

²A.W. Niemi, Jr., "Sexist earnings differences," The American Journal of Economics and Sociology, 36 (January, 1977), 38.

A clear pattern emerges — women earn less than men, even after adjustments for education and experience. Education, especially university education, reduces the gap — the ratio of female to male earnings is highest for young, single, and educated females. But as the 1976 graduates survey reveals, that gap is a long way from being closed.

When median salary figures are converted into ratios, in only three cases did the women's equal or exceed the men's (underlined in the table below).

Ratio of female to male graduates' 1978 median salary, by qualification level and prior work experience

Qua	1i	fi	ca	tior	1
1017	_e 1				

Work experience before graduation (years)

	None	Less than 1	1-2	3–4	5–6	7 or more
One—year college diploma	.69		.74			
Two-year college diploma	.85	.80	.83	.85	.86	.86
Three— or four—year college diploma	.91	1.00	.91	.88		.94
Bachelor's or first professional degree	.90	.89	.95	.92	1.03	1.01
Master's degree	.92		.84	.86	.83	.83
Doctoral degree	800 000	470 min				.90

Typically, the women's median salary was about 85% of the men's, although in one case it fell as low as 70%.

Results of the other studies suggest that this is the "normal" disproportion:

⁻Of the American graduates surveyed in 1972 a few months after they had completed their degrees, the median salary of women working full-time was 87% of the men's. The percentage at the bachelor's level was 88%.

⁻The U.S. survey of 1976-77 graduates found that by 1978 women were earning significantly less than men: \$10,300 versus \$12,700 (81% of male salaries).

⁻Ouebec's graduates survey revealed that overall the women's average salary amounted to 85% of what the men were making.

But there is reason to believe that the picture for female graduates has brightened. In 1976, Statistics Canada published Earnings and Work Histories of the 1972 Canadian Labour Force. Recent graduates were not singled out, but some tabulations are pertinent. For example, the average salary of women who had completed university and had four years of continuous labour force attachment was 70% of what men with similar qualifications and experience were earning. Those with five to nine years in the labour force were making just 61% of average male salaries. This suggests that the earnings gap was narrowing for recent graduates.

The apparent improvement enjoyed by the 1976 female graduates (85% of male salaries) must be tempered with the observation that the tables in Earnings and Work Histories are based on very broad education categories. Undoubtedly, a larger proportion of the men than women had master's and doctoral degrees, so average earnings in the male "completed university" group would tend to be higher than in the corresponding female group. Hence, the 1972 salary discrepancy may be exaggerated.

Nonetheless, even in "women's" fields, the earnings gap is evident. Nursing, for example, is a stereotypic "female" occupation. The median salary of the graduates with two—year diplomas was \$12,830 for the women, but \$14,340 for the men.

The data imply that the 1976 female graduates were aware of the gap and resented it. Actual dollar amounts, however, are not reliable indicators of the level of satisfaction, which may have had more to do with expectations fulfilled (or unfulfilled). For instance, two of the lowest median salaries earned by female bachelor's degree recipients were \$12,800 in fine and applied arts and \$12,920 in political science. But, while 81% of the fine arts graduates were satisfied with their income, this was true of just 72% of the political science degree—holders. The largest percentage who expressed salary satisfaction — 87% — had been education majors, yet their median was \$14,850, only a little above the overall median of \$14,150. Perhaps because salary scales in teaching are relatively well—known, graduates have realistic expectations and are not disappointed.

¹Statistics Canada, Consumer Income and Expenditure Division, <u>Earnings and Work Histories of the 1972 Canadian Labour Force</u>, Catalogúe 13-577 (Ottawa, 1976), 106.

Job Satisfaction

Although job satisfaction of male graduates was positively correlated with their qualifications, there was little difference among the women at various levels of attainment. The proportion of satisfied men rose from 84% of those with one— or two—year college diplomas to 92% of the Ph.D.—holders. However, women with doctoral degrees were scarcely more satisfied than college graduates. The former bring a high level of input to a job, and thus are apt to have commensurately high expectations. Underutilization of their skills could be a letdown.

Job satisfaction for women seemed to be related to the immediate applicability of their training. Contentment did not depend on male—female domination of a field. The happy traditionals (90% or more satisfied) included graduates of secretarial science and education; satisfied innovators had obtained their credentials in data processing, medicine and dentistry, business, and law. By contrast, rates for both women and men were lowest in fields with less obvious occupational outcomes: fine and applied arts, political science, and psychology.

Yet despite variations by sex and by field of study, the overwhelming majority of graduates who were employed full—time expressed satisfaction with their jobs.

Retrospective Judgment

When asked to assess their postsecondary education, the graduates' opinions were strongly related to their employment status. Those working full—time viewed their training far more favourably than did their educational equals who were looking for a job. However, employed women were not as positive as employed men.

At least a quarter of the college diploma and bachelor's degree recipients regretted their choice of program, as did 20% of the women and 16% of the men with master's degrees, and a fifth of the male doctoral graduates (the number of women with Ph.D.'s who wished they had taken a different program was

negligible). The most popular alternative was another university program. Men were twice as likely as women to reject the idea of postsecondary training altogether, but the percentage who felt that way was small (less than 10%).

Marriage

One of the most powerful influences on the graduates' employment situation was their marital status. "...Marriage has a positive effect on the labour market behaviour of men, and the opposite on that of women." 1 "...The attempt to integrate marriage, family life, and work is much more problematic for women than men..."

The 1976 graduates were no different than the rest of the population in that married men had the strongest labour force attachment; married women, the weakest. At every qualification level, the proportion of single women working full—time was much greater than the proportion of married women; the opposite was true of men. Also, at every level, the percentage of part—time workers among married women was larger than among single or marriage—terminated women or among men of any marital status. Similarly, married women were most likely to be out of the labour force entirely.

These patterns were to be expected, as they confirmed the earlier research. Cockburn found that in 1966 two times as many single as married Canadian female graduates were at work. About a quarter of her "currently employed" graduates were part—time workers, more of whom were married than single. The main reason for working (about half the respondents) was economic, but this was because 45% of the employed graduates were single; only a minority of the married women cited financial reasons. One—fifth said they worked for personal growth and self—fulfillment; one—sixth, to use their education and skills. (A sign of changing times — Cockburn's questionnaire asked respondents why they were working; the 1976 graduates were asked why they were not working).

¹Gunderson, 128.

²Carol Kehr Tittle and Eleanor Rubin Denker, "Re—entry women: a selected review of the educational process, career choice and interest measurement," Review of Educational Research, 47 (Fall, 1977), 572.

In their study of the British graduates of 1960, Kelsall et al concluded that marriage had the greatest effect on the women's occupational achievements. They noted a "substantial...disadvantage that married women...suffer in comparison not only with their academic equals of the opposite sex, but also in relation to graduate women who had remained unmarried." By 1966, 70% of the female graduates were married, and they were less likely than women as a whole to be employed.

Similar trends prevailed in the United States, according to data gathered by the National Opinion Research Center on the June 1961 bachelor's degree recipients. When they graduated, 80% of the female respondents were single, but by 1968, 85% were or had been married. The most important determinant of "career—involvement" (working full—time or enrolled in graduate or professional school) was marital status. One year past the bachelor's degree, nearly 85% were either pursuing additional education or working full—time. Yet in 1968, fewer than 40% were "career—involved..., and the decline over time...(was) steepest among married women."

Nonetheless, perhaps the major labour force development over the last decade has been the increasing participation of married women. And indeed, the percentage of the married 1976 graduates who were working full—time was no lower than 71% at any qualification level. In fact, marriage may have had something to do with keeping a woman at work, even at a job she did not like. At all levels, a higher proportion of the single than married female graduates intended to leave an unsatisfactory job. Those most likely to plan to stay in such a job were married and had a bachelor's degree.

The intentions of bachelor's degree recipients who found themselves in non-HQM clerical or sales positions give further evidence of how the fact of being married may be related to a woman's decision to remain in unsatisfactory employment. For both occupations, the percentage of married women who planned to stay was greater than the percentage who were satisfied.

Even married women whose work is discretionary may be dissatisfied. Society still places priority on the roles of wife and mother. The married postsecondary graduate with children cannot devote herself entirely to a career.

"...Conflicting responsibilities at work and at home...
may prevent such working women from utilizing their
productive talents to the best advantage... Many
may be compelled to accept unfulfilling jobs in order
to keep market work from too seriously interfering
with family responsibilities."

Continuing Education

The inhibiting effect of marriage on "career—involvement" was also evident in the graduates' plans about future education. A breakdown by marital status reveals that married women were least inclined to contemplate further study. Termination of marriage tended to spur the education plans of both sexes, but the effect on women was stronger. The predominant reason for the last group to seek additional training was to improve their job prospects. Married women had the weakest career motivation.

A comparison with Cockburn's 1966 survey suggests that there has been some increase in Canadian graduates' disposition to engage in further education. Nearly 40% of her respondents had taken at least one university credit course since graduation, but only a minority had done so within three years. About 10% definitely planned future enrolment; the rest did not have such intentions or were undecided. Marital status was significant: the single women were far more likely to have definite plans to continue their study. Their aims were practical — 85% of those considering future enrolment had a professional objective. They wanted "to learn to earn."

Paul J. Andrisani and Mitchell B. Shapiro, "Women's attitudes toward their jobs: some longitudinal data on a national sample," <u>Personnel Psychology</u>, 31 (Spring, 1978), 30.

Teachers

Teaching is the prototypical feminine career. Of all the professions, it is best adapted to a woman's domestic responsibilities, especially those of married women with children. First, unlike scientific fields, the knowledge base is not highly specialized or subject to rapid change, so it is possible to be absent for a few years without retraining. Second, opportunities for part—time work, at least until the recent past, have been plentiful, and openings were widespread throughout the country. This facilitated easy job transfers if the husband had to move. Third, teaching exemplifies the values that many women seek — it is useful to the community, personally rewarding, and excellent training for the role of mother. Finally, the hours and holidays suit the daily and yearly routine of children.

The British study by Kelsall et al found that the usual route for the women was to obtain teacher training and put it to use early. On entering university, two—thirds of the female respondents had planned to teach — and nearly all of them did (the first job of 61% was in education). Six years after graduation, the women were "even more solidly bunched in the education sector" — 70% of those who were employed. Yet when it came to securing key positions in education, women were less successful than men.

Cockburn's respondents, too, were likely to be teachers, although the percentage, 40%, was not so high as that in Great Britain. And the plurality of American women who had received their degrees in 1972 were employed as teachers: 47%, in contrast to 25% of the men.

Trends among the 1976 graduates diverged little from past Canadian, British or American patterns. At the bachelor's degree level, 43% of the women and 21% of the men were teaching full—time in elementary—secondary schools.

"Feminine" career or not, male teachers generally earned more than equally qualified women. A comparison of median annual salaries of graduates with equivalent education and experience shows that in some categories the men were making as much as \$1,000 more. In only one case, secondary teachers with at least seven years' experience, was the women's median salary higher (\$30).

The Clerical Ghetto

Clerical occupations are generally classed as non—HOM and rarely require a university degree. The female graduates with bachelor's degrees in fields that were not job—oriented (fine and applied arts, humanities, and some social sciences) had a much greater chance of ending up as clerks than did their male counterparts. Job satisfaction among these women was only about 50%, a somewhat lower level than the men's. Again, this is hardly surprising, for their median annual salary was about \$2,000 less.

Women with bachelor's degrees in business were particularly likely to be in a clerical job. On the other hand, men with these qualifications were apt to be employed in management—administration.

Nevertheless, a comparison with the 1972 American study shows that the overall percentage of female bachelor's degree recipients in the clerical category -10% - was not unusual. The corresponding U.S. proportion was 14%.

A Word to the Wise

Many of the foregoing observations suggest that there are a number of fields whose graduates have a high probability of getting either an unrelated or a nonprofessional, nontechnical job. At the college level, fine and applied arts is the notable stand—out for both women and men. Among bachelor's degree recipients, the highest proportions in unrelated and/or non—HQM jobs had majored in biology, fine and applied arts, or social sciences (except law and social work). Even at postgraduate levels, relatively large proportions of women in some disciplines had non—HQM jobs: at the master's, 32% from agricultural and biological sciences, 21% from business, 19% from the humanities. Only 78% of the women with humanities doctorates had HQM jobs. It might be argued that some who accepted unrelated or non—HQM work did so by choice, not necessity. However, their salaries and levels of job satisfaction were generally lower.

This is not to say that the raison d'être of postsecondary education is or should be job training. Nonetheless, the overwhelming majority of female graduates had enrolled for specific career objectives. And since their overall full—time employment rates were above 80%, working was obviously a central part of their lives. So given an opportunity to choose, that choice might just as well be a field with high rates of employment, earnings, and satisfaction.

Conclusion

The employment outcomes of women who received diplomas and degrees from Canada's colleges and universities in 1976 generally confirm earlier findings. In 1978, two years after graduation, their full—time employment rate and salary were lower than their male counterparts', they were less widely dispersed among occupational categories, and not as likely to actually be enrolled or plan to enrol for further postsecondary training. Moreover, comparisons with past studies and other countries reveal that this is the "normal" state of affairs.

However, there are signs of a change. Conventionally, "a woman who... (smiles) while being overworked, underpaid, and the butt of jokes, is doing what society expects a woman to do." But the women who earned their diplomas and degrees in 1976 were not living up to that expectation. Their employment situation was inferior to the male graduates', and they knew it: almost invariably they were less satisfied with lower salaries, and a higher proportion regretted their choice of educational program. Too late, perhaps, they realized that their early educational choices may have predestined them to subordinate positions in the world of work.

Current data indicate that the number of women in male—oriented post—secondary programs has risen significantly. In 1978, the year that the 1976 graduates were surveyed, the proportion of innovators among new bachelor's degree recipients had increased to 13% (from 11% in 1976). Moreover, if the women enrolled in bachelor's degree programs in 1978—79 do not change their major before graduation, the percentage of innovators will rise to about 17%, while traditionals will decline to 39% (from 61% in 1976). However, during the last year of university, many women who originally entered a nontraditional field switch to a female—intensive area. ²

Mary Ellen Verheyden-Hilliard, "Getting ready to go: Not propriety, but right," Educational Horizons, 53 (Spring, 1975), 139.

²Berger, "Females," 252.

Naturally, labour markets change, and the skills that were most sought—after in 1978 may not be so popular in the 1980s. Nonetheless, it is evident that job—oriented, male—dominated fields had the happiest employment outcomes—high rates of pay, employment, education—relatedness, and satisfaction.

Perhaps this information will be of use to women who are now contemplating postsecondary education, or even to their younger sisters selecting their high school courses. Results of the survey of 1976 graduates suggest that the women's career motivations were strong, but they were apt to relegate themselves to low status, low—paid jobs. Graduation is the wrong time to discover that one's education affords preparation for little more than a clerical occupation.



Bibliography

- Andrisani, Paul J. and Mitchel B. Shapiro. "Women's Attitudes Toward Their Jobs: Some Longitudinal Data on a National Sample," <u>Personnel Psychology</u>, 31 (Spring, 1978), 15—34.
- Berger, Gertrude. "Females and Social Occupations: Forced or Free Choice?" The School Counselor, 25 (March, 1978), 250-254.
- _____. "The Socialization of American Females as a Dysfunctional Process,"

 Journal of Research and Development in Education, 10 (Summer, 1977), 3-11.
- Bielby, Denise del Vento. "Career Sex—Atypicality and Career Involvement of College—Educated Women: Baseline Evidence from the 1960s," <u>Sociology of Education</u>, 51 (January, 1978), 7—28.
- Cockburn, Patricia. Women University Graduates in Continuing Education and Employment. Ottawa: Canadian Federation of University Women, 1966.
- Denton, Frank T. and Sylvia Ostry. <u>Historical Estimates of the Canadian</u> Labour Force. Ottawa: The Queen's Printer, 1967.
- Gladstone, B. "That's No Lady, That's My Boss," <u>Chatelaine</u>, 51 (July, 1978), 42-43, 84-86.
- Greenberg, Robert M. and Richard B. Tully. Educational Plans and Career Choices of Bachelor's Degree Recipients in Indiana. Indiana College-Level Manpower Study Report Number 3. Indianapolis: Indiana State Commission for Higher Education, November, 1975.
- Gunderson, Morley. "Work Patterns," in Gail C.A. Cook, ed. Opportunity for Choice: A Goal for Women in Canada. Ottawa: Information Canada, 1976, 93-142.
- Humphreys, Lloyd G. "Race and Sex Differences and Their Implications for Occupational Equality," Educational Theory, 26 (Spring, 1976), 135-145.
- Kelsall, R.K., Anne Poole and Annette Kuhn. <u>Graduates: The Sociology of an Elite</u>. London: Methuen and Co. Ltd., 1972.
- McClure, Gail Thomas and Ellen Peel. "College—bound Girls and Science Careers:

 Perceptions of Barriers and Facilitating Factors," <u>Journal of Vocational</u>

 <u>Behaviour</u>, 12 (April, 1978), 172—173.
- Moore, Kathryn McDaniel and Helen C. Veres. "Traditional and Innovative Career Plans of Two—Year College Women," <u>Journal of College Student Personnel</u>, 17 (January, 1976), 34—38.
- Niemi, A.W., Jr. "Sexist Earnings Differences," The American Journal of Economics and Sociology, 36 (January, 1977), 33-40.

- Québec. Ministère de l'Education. Service général des communications. Rélance à l'université. Québec: Ministère de l'Education, 1979.
- Statistics Canada. Consumer Income and Expenditure Division. <u>Earnings and Work Histories of the 1972 Canadian Labour Force</u>. Catalogue 13—557. Occasional. Ottawa: Statistics Canada, 1976.
- Labour Force Survey Division. Processing and Data Dissemination Section. Labour Force Annual Averages, 1975—1978. Catalogue 71—529. Occasional. Ottawa: Statistics Canada, 1979.
- . Labour Force Survey Group. <u>The Labour Force</u>. Catalogue 71-001. Monthly. Volume 36, No. 3. Ottawa: Minister of Supply and Services, March, 1980.
- ______. 1976 Census of Canada. Labour Force Activity: Labour Force Activity

 by Age, Sex and Educational Characteristics. Catalogue 94—806. Ottawa:

 Minister of Supply and Services, December, 1978.
- Tangri, Sandra Schwartz. Effects of Background, College and Post—College
 Experiences on Women's Post—Graduate Employment. Final Report.
 Washington, D.C.: U.S. Commission on Civil Rights, July, 1974.
- Tittle, Carol Kehr and Elenor Rubin Denker. "Re—entry Women: A Selective Review of the Educational Process, Career Choice, and Interest Measurement," Review of Educational Research, 47 (Fall, 1977), 531—584.
- U.S. Department of Health, Education, and Welfare. Education Division.

 National Center for Education Statistics. 1978 Survey of 1976—77

 College Graduates. Washington, D.C.: U.S. Government Printing Office, 1978.
- Verheyden-Hilliard, Mary Ellen. "Getting Ready to Go: Not Propriety, but Right," Educational Horizons, 53 (Spring, 1975), 138-141.
- Young, Anne M. Employment of Recent College Graduates, October 1972.

 Special Labor Force Report 169. Washington, D.C.: U.S. Department of Labor, 1974.
- Zuersher, Dorothy J. "Wanted: A More Realistic Educational Preparation for Women," Educational Leadership, 33 (November, 1975), 118—122.

APPENDIX A.

SURVEY QUESTIONNAIRE



Most tables and charts in this report are based on the results of a national survey of all 1976 postsecondary graduates. The survey, conducted in 1978, was designed to determine how the graduates had fared on the job market. The entire questionnaire is reproduced here, although not all the aspects of the graduates' situation and history that were probed in the survey have been presented in <u>Higher Education — Hired</u>?

Interviewer's name

SURVEY OF 1976 GRADUATES of Post Secondary Programs

	Date	Start Time	Finish Time		Result	Telephone Number
1						
2						
3						
4						
5						
	FINAL	RESU	LTS OF	TRACE (Mark one only)	5 CORRECTION FROM ITEM	1 4 (if necessary)
	Contacte Already Absent Unlisted No answ Can't be Unable	contacted for duration number over treached to trace over the reliving		92 93 ey	Bachelors or First Professional Degree Masters Degree Doctorate Degree Diploma or Certificate	y "complete the example, write the ast paper or report, No End interview in the interview in the complete th
3	We are This so with in in find strictly statisti cooper:	e condu urvey w nformat ing emp confid- cal pur ation in	ecting a vill provion about ployment ential ar poses. In answer	from Statistics Canada; survey of 1976 graduates. de educational planners t the success of graduates All your answers are d will be used only for would appreciate your ing some questions.	"complete the requirements example, write the last exa last paper or report, or def	om, or submit the fend your thesis.
4	admini you ob	strative tain a	informa	ensure that certain tion is correct. Did	specialization for your((If two, enter both)	· ·

3 Go to 6

No, did not obtain in 1976

9	What was the normal length in years, of the educational program leading to this — (read line 1B) =? Year(s)	17 Now I would like to ask you about your work experience between the time you completed the requirements for your ————————————————————————————————————
10	Did you take this educational program for the purpose of meeting specific employment or career-objectives?	May 31, 1978. First I will ask you what you did during that entire period ofenert_number = months.
11	Was work experience a prerequisite for completing the requirements of this educational program?	TO THE INTERVIEWER: Enter total number of months in Box A
	Yes ¹ O No ² O	18 In how many of these months did you have a job for pay or profit?
12	During the term in which you completed the last of the requirements for this	Month(s) If "none", enter 00 and go to 27 TO THE INTERVIEWER: Enter number of months in Box B
13	Full 1 Go to 14 Part 2 time Were you ever enrolled as a full-time student in this program?	19 In how many of these ———————————————————————————————————
	Yes 10 No 20	Month(s) If "none", enter 00 and go to 21
14	NOW I WOULD LIKE TO ASK YOU ABOUT ANY WORK EXPERIENCE YOU MAY HAVE HAD.	20 When did you start working at the first full-time job you held after completing the requirements for your — (read line 18)—?
15	For approximately how many years did you work full-time prior to completion of the	Month Year
	requirements for your	21 INTERVIEWER CHECK ITEM
	Never worked full-time	•If answer to item 18 is equal to total months in item 19
	1 - 2 years	22 INTERVIEWER CHECK ITEM
	3 - 4 years	Enter answer to item 18 Month(s)
	5 - 6 years	Enter answer to item 19 Month(s)
	7 years or more	Calculate the difference Month(s)
	Don't know	23 In how many of the (remaining)(ncm 221
16	Did any of these jobs last for a period of 6 consecutive months or more?	months would you have preferred to work full-time?
	Yes ¹ O No ² O	Month(s) If "none", enter 00

	INTERVIEWER CHECK ITEM	29	(continued)
	10		Did you rece a job offer a a result of .
	• If Box A is equal to Box B Go to 29A		No Yes
	Otherwise Co to 25		g) Get assistance or referrals from 71 72 73
	•Otherwise		instructors?
			h) Get assistance or referrals from 81 82 83
25	You indicated you worked(read Box B)_months out		friends or relatives?
	of the(read Box A)months covering the period		i) Place or 91 92 93
	between completing the requirements and May 31,		
	1978. In the remaining(read Box C)months,		
	were you looking for a job at any time?	30	NOW I WOULD LIKE TO ASK YOU SOME SIMILAR QUESTIONS ABOUT THREE
	Yes No 2 Go to 29A		SPECIFIC TIME PERIODS.
	168 O 100 to 25A		
		31	Approximately 1 month after completing the
26	In how many of these remaining	01	last of the requirements for your—tread line 18)—1
	months were you looking for a job?		did you have a job for pay or profit?
	Month(s) Go to 29B		Yes 1 No 2 Don't 3 know
			Yes No
			Go to 33
27	Did you look for a job at any time during		
	these (read Box A) months?	32	Had you accepted a full-time job for pay or pr to start at a definite date in the future?
	Yes No Co to 49		Yes 1 Go to 34 No 2 Go to 35
			Yes C (io to 34 No C (io to 35
0.0	In how many of these	33	Was that job a full-time or a part-time job?
28	In how many of these months did you look for a job?		
	Journous for a jour		Full- 1 Part- 2
			time U time U
	Month(s) Go to 29B	34	Was that job with a previous employer?
		0.1	
29	A. In order to obtain any job you held after		Yes O Go to 37 No O Go to 37
	the completion of the requirements for your		
	. tread the .Br., did you(read categories	35	Were you looking for a job for pay or profit
	aloud)		at that time?
	B. In order to find a job during these months,		Yes No Co to 37
	did you (read categories aloud)		Yes O No O Go to 37
	(Mark as many as apply)	36	Were you looking for a full-time job?
	Did you receive a job offer as		
	a result of		Yes 10
	No Yes		
	a) Use PUBLIC employment		100
	a) Use PUBLIC employment agencies (e.g. Camda Employment Centres 11 12 13		
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres 11 12 13 13 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15	37	NEXT, LET'S TALK ABOUT YOUR WORK
	a) Use PUBLIC employment agencies (e.g. Camda Employment Centres 11 12 13	37	
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres 11 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	37	NEXT, LET'S TALK ABOUT YOUR WORK EXPERIENCE DURING THE WEEK OF
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres 11 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15		NEXT, LET'S TALK ABOUT YOUR WORK EXPERIENCE DURING THE WEEK OF MAY 28 TO JUNE 3, 1978.
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres 11 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15		NEXT, LET'S TALK ABOUT YOUR WORK EXPERIENCE DURING THE WEEK OF
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres (Manpower)? b) Use PRIVATE employement agencies? c) Use university or college placement agencies? d) Check with professional associations or 41, 42, 43, 43, 43, 43, 44, 42, 43, 43, 44, 44, 44, 44, 44, 44, 44, 44		NEXT, LET'S TALK ABOUT YOUR WORK EXPERIENCE DURING THE WEEK OF MAY 28 TO JUNE 3, 1978. Did you have a job for pay or profit during
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres 11 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15		NEXT, LET'S TALK ABOUT YOUR WORK EXPERIENCE DURING THE WEEK OF MAY 28 TO JUNE 3, 1978. Did you have a job for pay or profit during that week?
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres (11 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15		NEXT, LET'S TALK ABOUT YOUR WORK EXPERIENCE DURING THE WEEK OF MAY 28 TO JUNE 3, 1978. Did you have a job for pay or profit during
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres (Manpower)? b) Use PRIVATE employment agencies? c) Use university or college placement agencies? d) Check with professional associations or unions? e) Contact previous employers directly?	38	NEXT, LET'S TALK ABOUT YOUR WORK EXPERIENCE DURING THE WEEK OF MAY 28 TO JUNE 3, 1978. Did you have a job for pay or profit during that week?
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres (11 12 13 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	38	NEXT, LET'S TALK ABOUT YOUR WORK EXPERIENCE DURING THE WEEK OF MAY 28 TO JUNE 3, 1978. Did you have a job for pay or profit during that week? Yes Go to 43 No
	a) Use PUBLIC employment agencies (e.g. Canada Employment Centres (Manpower))? b) Use PRIVATE employ 21 22 23 content agencies? c) Use university or college placement agencies? d) Check with professional associations or 41 42 43 continuous? c) Contact previous 51 52 53 comployers directly?	38	NEXT, LET'S TALK ABOUT YOUR WORK EXPERIENCE DURING THE WEEK OF MAY 28 TO JUNE 3, 1978. Did you have a job for pay or profit during that week? Yes Go to 43 No CO

	Were you looking for a during that week?	job for pay or profit		If you were to wor months of 1978, ap be your gross annu	proximately wha	
	Yes 1	No Go to 42			0.1	_
	103	110 00 00 10		Less than \$3,0	00	0
			1	\$ 3,000 to \$ 3	,999	0
41	Were you looking for a	full-time job?		\$ 4,000 to \$ 4	1,999	0
	1.0	9		\$ 5,000 to \$ 5	5,999	0
	Yes Go to 49	No ² O Go to 49		\$ 6,000 to \$ 6	0.5	0
				\$ 7,000 to \$ 7	06	
4.9	What was the main reas	on you did not look		\$ 8,000 to \$ 8	07	$\tilde{\cap}$
42	for a job that week? (Do	NOT read			08	0
	categories aloud. / Mark	one only)		\$ 9,000 to \$ 9	7,999	
		01		\$10,000 to \$10),999	
	Own illness or disability			\$11,000 to \$11	1,999 11	
	Personal or family responsibilities	020		\$12,000 to \$13	3,999	0
		03		\$14,000 to \$18	5,999	Ō
	Going to school			\$16,000 to \$13	7,999	0
	No longer interested in finding a job	04		\$18,000 to \$19	9,999	0
	Waiting for recall	0.5		\$20,000 to \$2	1,999	
	(to former job)			\$22,000 to \$2	16 3,999	0
	Had already found a new job	06 Go to 49		\$24,000 to \$24	17 4,999	
	Waiting for replies	07		\$25,000 to \$20	18 6.999	0
	from employer			\$27,000 or mo	19	()
	Could not find the kind of job wanted	080			20	
		09		Don't know		
	Discouraged with looking					
	Other reason		48	In that job, were employed or an ur		
No re	No reason given	110		Paid worker .	1	Go to 50
43	Was that job a full-time	e or a part-time job?		Self-employed		Go to 49
	Full- 1	Part- 2		Unpaid family	worker	OJ
44	For whom were you wo (Name of business, gover or agency, or person.)	rking at that job?	49	Do you-think the completed for you intended to prepar job or career?	r ——(read line (B)— re you for a spec	was
				Yes *O	No ² O	know
			-		Go to 67	
45	What kind of business, was this? (Give full des paper-box mfg., retail-sh	cription : e.g. oe store.)	50	Did you have a p ary position with definitions of "Per	that employer? (Read
46	What kind of work wer description : e.g. posting		Permanent position * (There was no indication that the job would end at some definite point in time. e.g. hired permanently with no specified term.)			2
	Don't 1 OR			Temporary position * (There was a definit the job would termi specified point in tit for a 6 month term	nate at some ne. e.g. hired	
		For office	51	Have you left tha	t job since June	3, 1978?
		use only				

8-3400-34,1

	Did you leave that job in order to obtain a more satisfactory job?	60	Did the employer specify the experience was essential for	at related work that job?	
	Yes 1 Go to 55 No 2 Go to 5	5	Yes ¹	No ² O	
53	Are you considering leaving that job within the next 3 months?	61	Considering the duties and	responsibilities of	
	Yes No ² O Go to 5		that job, how satisfied were salary you received? Would you were (read categor	you with the you say that	
54	Are you considering leaving that job in order obtain a more satisfactory job?	to	Very satisfied	¹	
	Yes ¹ O No ² O		Satisfied	20	
==	When you were calcuted for that ich what		Not very satisfied	³()	
99	When you were selected for that job, what minimum educational qualifications did your employer specify as a requirement for it?		Not at all satisfied	40	
	(Mark one only) Bachelors or First		Don't know / No opinion	5	
	Professional Degree 02	62	Now considering all facets	of that job, how	
	Masters Degree O3 Doctorate Degree	02	satisfied were you with it go you say that you were aloud)	enerally? Would	
	University Diploma 04		,	10	
	College Diploma or Certificate / 1 - 2 years		Very satisfied	20	
	College Diploma or Certificate / 3 - 4 years		Satisfied	3	
	Some post–secondary education		Not very satisfied	40	
	High school completion or less Go to 5:		Not at all satisfied	5	
	No qualification specified		Don't know / No opinion	0	
	Don't know Go to 60	63	Do you think that the work were getting in that job wil career prospects?		
56	Did the employer specify that it was essential for this qualification to be in a specific field or fields of study?		Yes ¹ O No ² (Don't know/ 3 No opinion	
	Yes No Co to 59				
57	Was your(read_line_1B)in this or any of thes		Do you think the educations completed for your(read		
	specific field(s) of study?		intended to prepare you for a specific job		
	Yes ¹ O Go to 59 No ² O		or career?		
58	Do you have any other educational qualification in this or any of these specific field(s) of stud.	ns	Yes 10 No	Don't 3 know	
00	Yes No 2		Go to 6	6 Go to 66	
90		0.5	Was that job one for which program was designed?	your educational	
	Would you say that the minimum educational requirements specified by your employer	69	program was according		
	Would you say that the minimum educational	00	Yes ¹ Go to 67	No ² O	
	Would you say that the minimum educational requirements specified by your employer for that job were too high, too low	00		No ² O	
	Would you say that the minimum educational requirements specified by your employer for that job were too high, too low or about right?		Yes ¹ Go to 67 In that job, did you use any	of the skills	
	Would you say that the minimum educational requirements specified by your employer for that job were too high, too low or about right? Too high		Yes ¹ Go to 67	of the skills	

67	Given your experience since completing the requirements for your	74 Were you enrolled as a full-time or as a part-time student?
	would you have selected the same educational program?	Full- 1 Go to 76 Part- 2 time
	Yes No opinion O Go to 69	75 Were you enrolled because you were working towards a degree, diploma or certificate?
		Yes No No 2
68	Which of the following would you have selected? (Read categories aloud)	76 During that week, did you have a job for pay or profit?
	A different program leading to a university degree	Yes No No Don't 3 Rnow C
	A different program leading to a university certificate or diploma.	Go to 80 Go to 81
	A different program leading to a college certificate 3 or diploma	77 Had you accepted a full-time job for pay or profit to start at a definite date in the future?
	No post-secondary program	
	Other 5	Yes 10 Go to 81 No 20
	Don't know / No opinion 6	78 Were you looking for a job for pay or profit during that week?
69	In general how important is it to you that a job be related to your field of study or specialization? Would you say that it is (read categories aloud)	Yes No Ro to 81
		79 Were you looking for a full-time job?
	Very important 2	Yes 1 Go to 81 No 2 Go to 81
	Not very important	80 Was that job a full-time or a part-time job?
	Not at all important	Full- 1 Part- 2
	Don't know / No opinion	time U time U
70	Do you plan to enrol at a Canadian post- secondary institution in the next 2 years?	81 FINALLY, I WOULD LIKE TO ASK YOU THRI QUESTIONS ABOUT YOURSELF.
	Yes 1 No 2 Don't 3 know 0 Go to 72 Go to 72	82 What is your year of birth?
	Go to 72 Go to 72	19 Year
71	Do you plan to enrol in order to improve your job or career prospects?	83 What is your marital status?
	Yes No Po Don't 3 know	Single (never married)
72	NOW I WOULD LIKE TO ASK YOU ABOUT YOUR STUDENT AND EMPLOYMENT STATUS DURING THE FIRST FULL WEEK OF OCTOBER 1977.	Married / Common law
		84 Are you a Canadian citizen or landed immigran
73	During that week were you enrolled as a student at a Canadian post-secondary institution?	Yes 10 No 20
		END INTERVIEW.
	Yes No ² O Go to 76	TO THE INTERVIEWER: Complete questions 85 to 87.

CODING ITEMS FOR INTERVIEWER:	4.	
85 Sex of respondent:		
Male 1 Female 2		
86 Province or territory in which respondent		
was interviewed:		
Newfoundland		
Prince Edward Island		
Nova Scotia		
New Brunswick		
Quebec		
Ontario		
Manitoba		
Saskatchewan 47		
Alberta 48		
British Columbia 59		
Yukon 60		
North West Territories 61		
87 Length of interview:		
of senger of metrics.	1	1
Minutes	10	LIBRARY (
88 Language of interview:		NOV 7
English ¹ French ²		1980 SKI
COMMENTS		18 1 30
		THE THE PARTY OF T
		The second secon
•		

8-3400-34,1



